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ABSTRACT

Included in this volume are a series of dialogues about various approaches to teacher education. Each dialogue consists of a brief sketch of a particular teacher education program, along with a response from the director of that program. The sketches, though organized differently, tend to describe similar program features: purposes, context, constitutents, practices, and the views of good teaching that seem to be implicit in these purposes and practices. The responses are more various, addressing issues of particular salience to the particular programs. The sketches were prepared during 1985-86, to help the National Center for Research on Teacher Education prepare its 5-year research agenda, and were intended to stimulate thought more than to thoroughly portray particular programs. They are presented here along with responses in an effort to further facilitate thought about teacher education. Included in this volume are dialogues about preservice and inservice programs as well as programs designed to help first-year teachers and an alternate route program. (Author)

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Issue Paper 88-4

DIALOGUES IN TEACHER EDUCATION

National Center for Research on
Teacher Education

NCRTE

**National
Center for Research
on Teacher Education**

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Issue Paper 88-4

DIALOGUES IN TEACHER EDUCATION

National Center for Research on
Teacher Education

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National Center for Research on Teacher Education

The National Center for Research on Teacher Education (NCRTE) was founded at Michigan State University in 1985 by the Office of Educational Research and Improvement, U.S. Department of Education.

The NCRTE is committed to improving teacher education through research on its purposes, its character and quality, and its role in teacher learning. NCRTE defines teacher education broadly and includes in its portfolio such diverse approaches as preservice, inservice, and induction programs and alternate routes to teaching.

To further its mission, the NCRTE publishes research reports, issue papers, technical series, conference proceedings, and a newsletter on contemporary issues in teacher education. For more information about the NCRTE or to be placed on its mailing list, please write to the Editor, National Center for Research on Teacher Education, 516 Erickson Hall, Michigan State University, East Lansing, Michigan 48824-1034.

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Abstract

Included in this volume are a series of dialogues about various approaches to teacher education. Each dialogue consists of a brief sketch of a particular teacher education program, along with a response from the director of that program. The sketches, though organized differently, tend to describe similar program features: purposes, context, constituents, practices, and the views of good teaching that seem to be implicit in these purposes and practices. The responses are more various, addressing issues of particular salience to particular programs. The sketches were prepared during 1985-86, to help the National Center for Research on Teacher Education prepare its five-year research agenda, and were intended to stimulate thought more than to thoroughly portray particular programs. They are presented here along with responses in an effort to further facilitate thought about teacher education. Included in this volume are dialogues about preservice and inservice programs as well as programs designed to help first-year teachers and an alternate route program.

INTRODUCTION

Mary M. Kennedy[1]

One of the first steps Michigan State University researchers took when forming the National Center for Research on Teacher Education was to visit a number of teacher education programs. These visits were designed to give us a better understanding of the different ways in which teacher education can be provided. The programs we visited represented preservice teacher education, inservice teacher education, and recent innovations for helping first-year teachers.

After visiting each program we prepared brief reports summarizing what we saw and learned. These reports were designed largely to help us plan our five-year research agenda. Other readers, however, found the site reports useful as well, and for the same reasons we found them useful: They stimulated thought.

Even though these reports were never intended to constitute complete statements about these programs, we have received numerous requests to make them more widely available. This document responds to these requests. It provides a sampling of the early NCRTE site reports written during our first year of operation.

The reports describe fundamental features of these programs: their purposes, their views about what constitutes good teaching, the rule they ascribe to subject matter, how they believe one learns to teach, and so forth.

Consistent with our view that these reports are largely stimulative, we present them here with responses from the program directors whose programs we

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[1]Mary Kennedy is director of the National Center for Research on Teacher Education (NCRTE).

visited. Readers who are seeking crisp findings will not be satisfied with these reports. Those seeking to expand their own thinking will find a wealth of ideas represented in these reports and in the reactions to them.

NORFOLK STATE UNIVERSITY
EARLY CHILDHOOD AND ELEMENTARY EDUCATION PROGRAM

SITE REPORT

Lynn Paine[2]

Description of the Program

Norfolk State University's teacher education programs include both elementary and secondary teacher preparation. Students seeking credentials to teach in elementary schools enter a two-year program of study in Early Childhood and Elementary Education (ECE) to get certified to teach nursery and kindergarten through grade four (NK-4). Upper elementary school training, considered a separate certificate by the state, is available at Norfolk State (NSU) through a joint credential program with Old Dominion University, but this upper elementary education program is not a major thrust of the School of Education's activities and was not explored as part of the site visit. Students seeking certification to teach at the secondary level major in a subject matter discipline and take education courses through the School of Education during their last two years of college. Structurally, each of these programs represents a mainstream approach to teacher education.

Historically a black institution, NSU and its School of Education have a majority of black students. Despite recent increases in the proportion of white students, black students now comprise approximately 75% of the student population in elementary education and 55% in secondary education. The University's open admissions policy plays a significant role in the curriculum of both the university and the school; courses and programs designed to assess

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[2]Lynn Paine is an NCRTE senior researcher and assistant professor of teacher education at Michigan State University.

individual needs, screen students, and provide remedial help are an important part of the distinctive configuration of the university and school's programs.

Because many of the school's students can be considered nontraditional students--either mature, working, and/or with family obligations--and take courses over an extended period of time, it is not particularly appropriate to describe the teacher education programs as two-year programs. While the program is designed as a two-year sequence of university and fieldwork, students often take their courses at a pace which extends this length of time. With this caveat, for the purpose of this discussion I will, as faculty and administrators in the interviews did, describe the program of study in terms of a two-year program.

Students are admitted to a program in education at the end of their sophomore year. Their admission is determined after faculty consideration of their speaking skills, their health and character, their high school rank, and their having received 700 or better on the SAT, having an average of 2.3 or better in all lower level courses, and having taken the core battery test of the NTE (National Teacher Examinations). These admissions requirements have been in the process of reform in recent years and are the focus of some controversy among faculty and students. (There was also evidence of misunderstanding of the specific requirements.) After a student is accepted, she or he takes foundations and methods courses in the school and has experience in classroom observation and, in the case of ECE, a practicum in working with children in teaching reading. At the completion of these courses, students apply for student teaching and are once again evaluated. It was my understanding that in some cases this has become the real point of admissions, since students are not able to proceed to student teaching if they have not taken the NTE core battery.

In secondary education students spend 200 hours in student teaching. At the elementary level they spend nine semester hours and, in accordance with state requirements, prepare for a dual certificate by teaching at two levels and in two sites. Their pre-student teaching experience is seen as a pre-professional experience in which students act as guests in a school in order to learn more about the context of teaching and the role of teachers as professionals. During student teaching assignments students must teach for at least 200 hours.

During their senior year at NSU, students must take the NTE professional knowledge and specialty exams for certification. As of 1985, graduating teacher candidates began work as new teachers with a two year provisional status. Within or at the end of that two-year time, the candidate is observed and rated on 14 generic competencies which are criteria for the Beginning Teacher Assistance Program. With approval based on performance on the BTAP, teachers are then taken off provisional status. These state-mandated forms of evaluation (the NTE and the BTAP) have had a clear influence on the curriculum and admissions situation of the School of Education.

Striking Observations: Key Themes

Of those elements identified by the NCRTE as key areas for investigation, several took on particular importance in understanding the work and reform of teacher education at Norfolk State. Five will be mentioned here: views of teaching, views of learning to teach, an emphasis on writing, the nature of the clientele, and the changing policy context. These five areas are interrelated themes which make up that which appeared distinctive about NSU and that which holds research interest for our work. All of these themes can be better understood by consideration of two important factors: the community

served and change in the institution's policy context. I will discuss each of the five elements separately, but encourage the reader to be aware of the linkages between each and in particular to consider the powerful connection between teacher preparation and its clientele and institutional context.

Views of Teaching

Certain themes emerged in the interviews as people discussed their views of teaching embedded in the teacher preparation programs at NSU. I found these themes consistently expressed by people engaged in both elementary and secondary preparation, but there was a clearer articulation of these by directors of programs than by faculty involved in methods courses. Teaching was portrayed as centering around assessing, finding, and using resources to help individual students learn. Teachers were described as "information brokers." Teachers' work was seen as involving much diagnosis and prescription.

A second theme that emerged was that of teaching's strong tie to the community. The work of the teacher is defined in part by the community the teacher serves. Teachers need to know about the cultural backgrounds of their students. Although their work involves broadening students' backgrounds and horizons, they need to start with the familiar, with where the students are. The elementary education program stresses a view of teaching as connected to a network of community and social services; teaching is described as serving a community of clients. Courses place teaching in the broader spectrum of human service agencies. Significantly, teaching is seen as a profession that has limits. The program attempts to clarify for students both what teaching can and cannot do. This theme was emphasized in discussions with the elementary education faculty.

The vision of learners is a major element of this emphasis on the importance of the community to teaching. Classrooms are seen as composed of a collection of individuals. Diversity among learners is a major theme. Articulated consistently by those interviewed was the need for teachers to be able to diagnose and work with the individual needs of each child. In addition, the cultural, social, and racial backgrounds of children are seen as important aspects of classroom life that affect teaching and learning. In this view teachers need to be aware of the communities out of which their students come in order to be better able to serve their particular needs. An interest in multicultural education, expressed in a multicultural resource center on campus and the approaches of many faculty members, is integrated into the curriculum. This is in part the result of funding in previous years for this aspect of curriculum development.

Learning to Teach: Views as Expressed Through Curricula

Given these views of teaching, the elementary and secondary programs of teacher education are structured around conceptions of learning to teach that are consistent with the view of teaching as diagnosing and prescribing, identifying and making full use of resources, and serving the community's needs and interests. The first of these is particularly salient in the curriculum of the programs. Students develop skill at diagnosis and assessment, say the people interviewed, by learning about it and by having that done as part of their university training and modeled for them. Students "experience it and are taught at and about it."

Students at NSU are involved in diagnostic testing throughout their time at the university, beginning with their taking entry level tests in math, reading, and writing at the commencement of their freshmen year. Based on

student performance on these first tests, students may participate in an array of courses (both individualized and whole group) aimed at remediating areas of academic weakness. An impressive complex of human and material resources is made available to students, and it is clear that each student will proceed through the university at a different pace based on his or her need to spend time in remediation. In the school's programs, diagnosis continues through informal means (such as the admissions/screening process) and faculty are heavily involved in tutoring and providing remediation opportunities for students.

A fairly new course that has been developed in the School of Education embodies the concern for both conducting and modeling diagnosis and prescription. This course, called Seminar in Evaluation and Assessment, is aimed at preparing students to have generic skills in diagnosis and prescription. (Teaching subject-specific skills in these areas is seen as the responsibility of the methods courses.) This course in fact has become temporarily a course aimed at preparing students for the NTE; its thrust is developing test-taking skills. Faculty members involved in designing and teaching this course are aware that the current course is not fulfilling the full range of objectives of the course as conceived, but they explain this as a necessary response to the current problems raised by the NTE requirement for Virginia teachers.

Attention to both elementary and secondary programs appears to focus chiefly on these skills that are seen as generic. A specific concern about learning subject matter knowledge and pedagogical content knowledge was not expressed in the majority of interviews, particularly not by directors of programs. Responsibility for students learning subject matter knowledge (and much of the responsibility for students learning how that knowledge might be used in a teaching context) seemed to be given to the academic departments,

particularly in the case of preparation for secondary teaching. In interviews with faculty in Education and in other departments, there was much less clarity and little articulation of what sort of knowledge students need and the implications of teaching particular subjects for teachers' preparation. There was concern voiced about the need for students to have sufficient knowledge and meet acceptable academic standards, but the chief obligation to determine those standards was seen to rest with the university (in establishing its general education requirements), departments (in setting their course requirements), and the state (in setting expectations about the NTE).

Personal qualities also featured prominently in the discussions I had with faculty about their views of teaching and how teachers learn to teach. Clearly the faculty approaches to dispositions and their acquisition reflect the views of the community served. People interviewed commented on the need for teachers to be caring, committed, tolerant, and to be able to respond to individual differences. Faculty members felt that these qualities are modeled through the faculty-student interaction that occurs, the structural flexibility of the program that allows students to tailor the program to respond to their level and needs, and the high commitment of the faculty in the program to the goals of the school and the university. What was interesting was the way that this aspect of the training was not highlighted in interviews, but came through as an important element of the nonformal training that occurs.

One person involved in program development explained that compassion is viewed as one of the important qualities that teachers need, that this is something that is talked about a great deal in the programs and is taught effectively through modeling and one-to-one interaction; yet the interviewee also conveyed an awareness of the danger of emphasizing this to the neglect of learning. The school's interest is in producing "demanding teachers," not

just ones who love children. The common institutional difficulty of balancing a concern for academic rigor with a commitment to developing compassionate teachers has special meaning for this school, given its social context, its clientele, its institutional mission, and the political and professional movements within education that are calling for heightened standards.

A term which came up regularly in the personal interviews and phone interviews is "professional." The word as it was used in these conversations seemed to refer to a cluster of skills, knowledge, and dispositional qualities. Faculty members were concerned that students as part of their training have opportunities for explicit attention to what it means to be a professional. Student teaching and the seminar that accompanies it, as well as a special symposium that precedes it, all have as a focus the development of an understanding of professionalism. The word was never defined. When probed, faculty would refer to the need to develop standards of speech, dress, and behavior congruent with being "a professional."

People explained that it is important for students to develop a sense of pride and self-respect, to think about the consequences of their actions, and to begin to define themselves as fledgling members of a profession. Significantly, both those working in practicums and courses stressed that student teachers are visitors, that they are guests working in schools, and that as guests the students are to be aware of and to develop skills in working in the organizational context of schools. Subtle arrangements made as part of the student teaching reinforced the students' awareness of their status as novices, in need of university support and the professional guidance of experienced teachers. At the same time, one faculty member interviewed explained that student teaching hinges on students learning from experience and trial and error. I see these as conflicting approaches to learning to

teach, yet both versions were apparent in the university and field experiences for teacher candidates.

The Role of Writing in the Preparation of Teachers

Of special importance to our study is NSU's emphasis on the role of writing and the teaching of writing. NSU offers a strong diagnostic program in writing and English for all students and a particular stress on the teaching of writing and the use of writing in courses throughout the curriculum. At meetings I had with faculty in the English Department I was impressed with the network of resources widely used within the university, the depth with which faculty and the institution had thought about writing issues, and the connections (personal and instructional) between the English Department, writing program requirements, and the training of teachers at both the elementary and secondary school levels.

The university offers a wide range of courses and tutorial programs aimed at developing students' writing skills. Throughout the sequences of courses, students are exposed to diagnosis and models of teaching that stress the importance of writing. Students are given a placement test for writing on entry to the university and pre- and posttests are administered throughout the students' formal study of writing. These tests are used to match students with particular courses and to identify areas of weakness in writing. It is noteworthy that the placement test includes both a test of standard written English as well as a writing sample developed and holistically graded by the English Department. (An interesting consequence of the procedures used for grading is the development of shared norms among English faculty about standards for good writing.)

The teaching of writing occurs at several levels and at several points in the students' academic development. There is a basic three-course sequence of composition courses that all students in the university are required to take. The sequence involves a term each on "basic writing form" (with an emphasis on preparation, writing, and revision), critical and analytical writing that is involved in the production of research papers, and writing about literature. In addition to these courses, there is a transitional sequence of two courses for students with weak skills. This course sequence, aimed at bringing students to university levels in writing skills, involves about 70 percent of the students when they first enter NSU. A final writing resource for students is the support of the language skills center, which works to supplement the above courses and at which students receive tutorial assistance. The language skills center works with approximately 300 students a term. An additional four or five hundred students go to the center for one-time help.

Writing has been given particular emphasis in the university and the School of Education thanks to a $350,000 Title III grant supporting a project called Writing Across the Curriculum. This is a five-year project, the objective of which is to help the university's faculty develop writing protocols to reach the objectives of their courses. The goal is to expand the use of writing in university courses. The method has been to work with faculty in six schools (70% of all faculty) to train them to use writing more in their own courses, to devise writing assignments, to develop ways to sequence and evaluate that writing, and to see and use writing as a way of learning. Faculty have been encouraged to model writing and the writing process in their teaching. The project is sponsored by the English and Foreign Language Departments.

The emphasis on writing has implications for the teacher candidates in Early Childhood Education as well as secondary education majors ho intend to teach English. In courses for education students, the faculty have stressed the idea that all teachers are teachers of writing. The teachers who have worked with the ECE students spoke about their obligation to be models for speaking and writing. They taught about writing in part by demonstrating it, doing writing that the students could see. The faculty felt that this approach to writing is increasingly consistent "across the boards" for both elementary and secondary program students, in and out of their writing-specific courses.

The Clientele

In nearly every interview conducted, I heard faculty members answer some question (and the question might differ) with reference to the university's mission and its status as an open university. Clearly, the faculty take pride in their institution's history as a black institution and its contribution to the community in accepting students of diverse backgrounds. I sensed a kind of institutional saga surrounding the university's mission, the structures (such as the language skills center) that have grown as a direct result of that mission, and the faculty commitment to working with a diverse population, one typically not served or poorly served by the majority of American institutions of higher learning.

The preparation of teachers at NSU has been greatly influenced by the pool of students attending the university. Faculty were quick to note the often weak academic preparation of students entering the university and of many applying for admission to teacher education programs. Implicitly in its programs and faculty practices, the school has taken a clearly articulated

policy decision: working to develop academic excellence, rather than requiring that on entry to the programs. Full-blown remedial programs that exist in the university, particularly for the beginning student, have their parallels in informal practices in the school--the faculty's frequent role as tutor, the individualization of students' course-taking schedule, and the development of the sophomore level course on testing.

The recent decision in the school to clarify and hold more consistently to admission standards set over the past few years is an example of the special challenge of NSU's education program and the impact of its particular clientele. In recent years the admissions requirements have been expanded to include speech screening results, SAT scores (of 700), and the taking of the NTE Core Battery. (The goal is to put in place a common proficiency exam which must be passed for entry to the school, but the university has not yet developed this exam, so the NTE is being used in the interim. A passing score is not required for entry, but the student must have taken the exam.)

The upgraded admissions requirements reflect the confluence of emerging national trends in teacher education and the situation of NSU students. The school wanted to be part of the reform movement that was getting underway in teacher education and it was concerned about upgrading the level of students in teacher education at its own institution. The decision also reflects an interest in having as much information on each student as possible to allow for more effective diagnostic and prescription to occur during the students' professional studies.

Policy and Institutional Context

NSU's School of Education offers a fascinating case of institutional change and the impact of external policy on programs of teacher education.

The most obvious examples of policy change that have influenced the teacher preparation admissions, curricula and standards are the state (Commonwealth of Virginia's) decisions to use the NTE for teacher certification and to implement the Beginning Teacher Assistance Program to assure that regular teachers (not on provisional status) have "demonstrated the possession of selected competencies." The NTE became part of the state policy context in 1986, the BTAP in 1985.

It is clear that these policies have had a significant impact on the school. The faculty's decision to begin to incorporate the taking of the NTE exam as part of the admissions process has been a controversial one, with interesting implications for our study of student recruitment and implementation. The incorporation of competency-oriented teaching and evaluation as part of the field experience, its associated seminar, and other education courses also touch on questions of interest to our study. In particular, given the school's traditional role in providing black teachers for the state and the nation, the impact of the standardized NTE exam on its students is important. Faculty often spoke about this issue during the interviews, and when not directly addressed it nevertheless emerged as an important unspoken concern.

At the root of faculty concern is the effects of NTE exams on the preparation of minority teachers in the United States. The school sees itself challenged and somewhat threatened by these state-imposed standards. The school's own definition of its mission has thus become more complex. As faculty see it, they now must prepare students for test taking, as well as for teaching. The dilemma of the school and its faculty is an important one as we think about what some faculty referred to as the possible extinction of teacher education in black colleges.

RESPONSE TO SITE REPORT

Denise L. Littleton[3]

Lynn Paine's site report, based upon observations and interviews with selected faculty members and administrators within the School of Education, reflects, in essence, a composite view of teacher education at Norfolk State University, a historically black institution. As a response to the report, it is necessary to elaborate briefly on the mission and philosophy of the university and its relationship to the goals of the teacher education program, the diagnostic-prescriptive methodology used to prepare teachers and the impact of Virginia's state Department of Education reforms upon Norfolk State University's teacher education program.

The University's Mission

The University's mission reflects the following purpose and philosophy:

> Norfolk State University, an urban institution [and multipurpose in classification] exists to provide opportunities for obtaining a quality education through the acquisition of knowledge, understanding and skills. It is the philosophy of the university that all people, regardless of socioeconomic status, race, sex, age, handicap, or national origin are entitled to profit from educational opportunities and advantages to the fullest extent of their capacities.

This philosophy undergirds the university's open admissions policy and its commitment to the clientele served. The magnitude of this commitment permeates the university and is rooted in its history as primarily a community initiative during the Depression to meet the educational and career needs of minority youth. During its 51-year history, its achievements have been noteworthy.

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[3]Denise Littleton is an associate professor in the Department of Special Education at Norfolk State University.

It is the largest predominantly black institution in the state of Virginia and the third largest black institution in the United States. Though historically black in origin, the university has sought to establish a campus community characterized by cultural pluralism. The approximate racial mix of the student body for 1986 was 85 percent black, 12 percent white, and 3 percent international. Such diversity promotes a wide range of classroom perspectives.

Goals of the Teacher Education Program

The philosophy of the university and its open admissions policy then, as stated in the site report, plays a significant role in the curriculum of both the university and the School of Education. Courses and programs are designed to diagnose students' strengths and weaknesses and, if necessary, provide prescriptive and/or remedial assistance throughout the students' matriculation. This occurs university-wide, school-wide, and within the student's major department. The open admissions policy and philosophy of the university demand the above-mentioned components (diagnosis and prescription) be met.

It is also reflected in the School of Education's purpose to provide preservice and inservice educational programs to prospective teachers with corollary purposes to (a) contribute to the knowledge base in the field of educational theory and practice in a multicultural, multilingual, and multiracial society and (b) to promote service to the agencies engaged in education in such a manner to promote the realization of equal educational opportunity and equal educational results for all children. To prepare early childhood/elementary education teachers who are able to teach young children of diverse backgrounds, needs, and strengths is an objective that guides program development and evaluation of the Early Childhood/Elementary Education Department.

The historical origin of the university to meet the needs of diverse learners permeates the teacher education program to prepare teachers to do the same.

In this context, teacher educators, with individual variations, become the models and demonstrate the methods for teaching diverse learners that are being espoused in courses of methodology. Because of the diversity among prospective teachers in the teacher preparatory program, the need to meet the individual needs of learners (through diagnosis and prescription, incorporating formal and informal methods) for holistic development and the emphasis on multicultural education is demonstrated and integrated throughout the total curriculum. Student teaching provides the prospective teacher the final opportunity, under the guidance of university and school personnel, to combine theory and practice for effective instruction. It is the time when students learn from experience and trial and error. Though these were seen as conflicting approaches by Paine, if student teaching can be seen as a period of gaining experience through trial and error, under given parameters, the approaches may not seem conflicting.

State Policy Changes

The philosophy underlying teacher preparation at Norfolk State University is in place, yet the parameters under which the philosophy permeates the curriculum are constantly changing due to standards and curriculum changes required by Virginia's state Department of Education. As indicated in the site report the Beginning Teachers Assistance Program was actualized in 1985 and NTE cutoff scores for teacher certification were imposed in 1986. In 1988, curriculum changes limiting professional education courses to 18 hours plus student teaching has been mandated. By July 1988, a restructured program requiring teacher education majors to have an undergraduate degree in an arts

and science discipline with limited professional educational course requirements as stated above is to be phased in and fully operational by July 1990.

For at least five years, the impact of external policy changes upon teacher education programs at Norfolk State University have been dramatic. Faculty concerns (i.e., the survival of teacher education in black colleges and universities and the decline of minority teachers in the United States) are those espoused by minority teacher educators across the nation. Unfortunately, the dilemma has not eased as the numbers of minority teachers are constantly declining.

TRENTON STATE COLLEGE
UNDERGRADUATE TEACHER PREPARATION PROGRAMS

SITE REPORT[4]

Karen Zumwalt[5]

Formerly a teachers college, Trenton State College is now a liberal arts college proud of its recent recognition as one of the "public Ivies." Despite the changes, Trenton State College maintains its commitment to the education of teachers and its reputation for preparing teachers who are sought after by school districts. Over 1,000 undergraduates at Trenton State College are involved in the many programs offered by the School of Education. There are also masters degree programs for preservice and inservice teachers, including one for those working to be recertified as math teachers. In addition, the School of Education also runs several certification and degree programs abroad. Trenton State also operates three regional training centers for the preparation of the state's alternate route teachers. This report will focus on the undergraduate preparation of prospective secondary math and English teachers and prospective elementary teachers.

Description of Programs

The Elementary Secondary Math, and Secondary English programs are committed to providing the best prepared teachers for the public schools and

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[4]This report is based on structured interviews conducted with two administrators, six faculty and two school people involved in undergraduate preparation programs in elementary education, secondary math, and secondary English at Trenton State College.

[5]Karen Zumwalt is an NCRTE senior researcher and associate professor of education on the Evenden Foundation and chair of the Department of Curriculum and Teaching at Teachers College, Columbia University.

to ensuring the employability of their graduates. All three programs, but especially the elementary program, are struggling to maintain their quality in the face of state mandates that go beyond certification to prescribe curricular changes in the undergraduate teacher education programs in the state of New Jersey. New state certification requirements such as minimum grade points; basic skills tests in reading, math, writing, and oral communications; the National Teacher Examinations (NTE); and the required academic major have not had major programmatic impact at Trenton State. But state requirements which limit professional studies to 30 credits--including mandated sophomore, junior, and senior year practicums--which limit the content of professional studies to the "Boyer topics"--the curriculum for the regional training centers preparing alternate route teachers--(Boyer, 1984), and which mandate a K-12 generic approach to professional studies have been much more troublesome.

The three programs are located in three different departments. The secondary math and English teacher preparation program are housed in the Department of Mathematics and Computer Science and the Department of English. Prospective elementary teachers, all of whom must also have an academic major, are prepared in the Department of Elementary/Early Childhood and Reading, located in the School of Education. Although the programs are presently run separately, the required sophomore, junior, and senior field experiences are coordinated centrally by the School of Education. (There are college-wide guidelines for university supervisors and cooperating teachers and standardized forms for the midterm and final evaluation of teachers.)

Currently, prospective secondary teachers must fulfill college general education requirements, all respective department requirements for academic majors, nine credits in behavioral and social sciences, professional courses (methodology, reading, foundations) as determined by the academic department,

and three practicums (i.e., sophomore professional experience, junior professional experience, and senior professional experience). Professional studies, including the 19 credits for required practicums, may not exceed 30 credit hours.

For prospective secondary teachers, the sophomore practicum/seminar (2 credits) is their introduction to education. They visit a variety of educational settings--secondary schools, elementary schools, correctional institutions, industrial education sites, and so forth. The junior professional experience (6 credits) is "competency-based focusing on the development of proficiency in teaching techniques." It includes directed and limited participation in off-campus demonstration, as well as attention to the Boyer topics (e.g. discipline, Bloom's taxonomy, domains of learning). Senior-year students are involved in one semester of full-time student teaching (10 credits plus 1 credit for accompanying seminar) which is supervised by faculty from the academic department (once a month) and faculty from the School of Education's field services office (once a month). Half the semester (8 weeks) the student teacher works in a junior high school and half the semester (8 weeks) in a senior high school. Student teachers attend a student teaching seminar taught by the academic department supervisor and the School of Education supervisor on alternate weeks.

Prospective elementary teachers may enroll in an elementary or an early childhood program. Until five years ago, the elementary program had two tracks: a traditional or "time-honored" approach and a CBTE (Competency Based Teacher Education) approach which focused on the successful mastery of specific generic competencies in learning modules. These two tracks have now been combined; students take courses that include both approaches. In the

junior year, however, a student may elect to complete the junior professional experience through a CBTE approach or a traditional approach.

The requirements for prospective elementary teachers are very similar to those for the secondary teachers. Students must meet college-wide general education requirements, complete an academic major (usually in sociology, geoscience, English, psychology, or history), take 9 credits of social and behavioral science, and complete a maximum of 30 credits of professional study that must include sophomore, junior, and senior year practicums. The 30-credit maximum has minimized the separate subject matter methods courses (e.g., math methods dropped from a 3-credit to a 1-credit course; the previously required outdoor education experience/environmental sciences sequence is in jeopardy). All prospective elementary teachers must take 6 credits of math in the math department and the math methodology course which is integrated with the junior professional experience. All prospective elementary teachers must take two semesters of writing courses and a language arts methods course which includes writing. (If they are English majors, they need to take at least three writing courses.) All students must pass basic skills tests in reading, writing, math, and oral communications.

The greatest difference between elementary and secondary programs are found in the field experiences. Elementary teachers have a freshman-year field experience which serves as an introduction to teaching and includes field trips and classroom observations. During the sophomore year, students are placed in Trenton schools for an urban school experience. The junior professional experience (JPE), which requires a full semester, is the hallmark of Trenton's elementary preparation program.

One of the sections of JPE is conducted in a local school where the program has several rooms including a student lounge and library reserved for

Trenton State students. Except for a math course on campus, the students are at the school all day for the semester. There is extensive use of videotaping of students as they conduct lessons. Teams of students are assigned to each classroom to facilitate opportunities for peer observation and coaching. College professors are in the school working with students as a group and individually.

In the other sections of JPE, students are in a public or private school for two to three mornings a week. They return to the college for their accompanying course work. During the last two weeks of the practicum, they are in the field all day. Otherwise, the format is similar to the CBTE--the students are assigned in teams of four to six per classroom. For the first three weeks they mostly observe, for the next six weeks they are responsible for one lesson per week which is critiqued by the cooperating teacher, the university supervisor, and their peers. Sometimes, videotaping is used, but less extensively than in the CBTE JPE. During the last two weeks, when students are full time, they are responsible for one lesson a day as well as teaching a unit which the students cooperatively design.

Students from all programs complete one semester of student teaching during their senior year in local schools or abroad. They are eligible, upon graduation, to participate in the Teacher/Support Program. This program provides free assistance to Trenton graduates during their first year of teaching.

View of Teaching

In the foreword to the handbook for field experiences, the Dean explains that

> We pride ourselves in our ability to prepare a teacher that has an insatiable desire to continue to learn and recognizes

> experience as a valuable teaching tool; a person who is capable of adapting to the constant changes taking place in the elementary and secondary school arenas; a teacher who has learned that knowledge is not static and the only thing that is certain is that change is inevitable. Our teachers recognize that they live in a world where the rate and substance of change is such that they cannot reasonably expect that the answers learned in youth will fit the questions asked in maturity.

Quoting the Association of Teacher Educators "Guideline to Clinical Experiences in Teacher Education," the handbook describes the four characteristics of competent teachers:

1. Intellectual curiosity; seeks wisdom as an extension of his knowledge and reflection about its meanings.

2. Reason, judgment and action based on creative and reflective thinking; has command of communication and logical thinking; and the ability to draw appropriately upon data in the various human learnings with special competencies in one area.

3. Embraces certain values--at least a partially formed and examined philosophy of life around which he organizes his personal and professional activities; understands the fundamental concepts, principles and ways of thought of the profession.

4. Master of the principles of learning and teaching; creative in the translation of ideas and ideals into action for the education of others.

Teachers with such characteristics, summarizes the handbook, develop in students this same intellectual spark, the same commitment to thinking and action, the same attitudes of human acceptance and aesthetic sensitivity, and help students develop value patterns, attitudes, and ideas necessary for a rich personal and professional life.

Respondents seem to hold an intuitive rather than an intellectualized conception of teaching which each articulates in somewhat different ways. Still there seems to be a collective sense of competent teaching. Respondents agree that there is no one way to teach; that teaching is contextually based and involves use of a variety of approaches and strategies. The active,

thinking teacher would not use just one mode of instruction, such as lecturing. When respondents were asked about the knowledge, skills and dispositions needed to teach, they generally responded with the usual references to knowledge of subject matter, children, social context, teaching, learning, curriculum, and management. Many emphasized the importance of intra- and interpersonal skills.

There is a general uneasiness about the state's K-12 generic approach to teaching, though respondents differed on the degree to which they think there are generic components of good teaching. While everyone accepted the need for a solid liberal arts background and an academic major, most felt strongly that professional studies are a more important component than the state seems to recognize.

Learning to Teach

> During its early stages of development, our professional ancestors had the foresight to design a teacher preparation program that placed major emphasis upon demonstrated teaching competency. The administration and faculty continue to consider the professional laboratory experience as one of the most important features of our teacher education program,

states the Dean in the handbook for educational field experiences. This strong belief in the field experiences is evident in the structure of the program and is echoed by the respondents here.

The junior professional experience is widely seen as the arena where students learn how to teach with the help of college faculty, college supervisors, cooperating teachers, and their peers. The use of teams of student teachers in observing and critiquing their classmates and the collaboratively designed lesson plans and units break out of the more usual reliance on self, university supervisor, or cooperating teacher in learning how to teach.

Student teaching is seen as a time when students sharpen their skills and gain new learnings only possible when one is teaching full time. But, primarily it is viewed as a time to demonstrate one's teaching competence. Because of their view that learning how to teach takes place primarily in JPE, some respondents are particularly critical of the state asking them to place students directly into student teaching to fulfill missing certification requirements. The predominant view here is that, while learning how to teach is a continual process, it is fostered specifically in professional studies courses and practicums through well sequenced, intensively critiqued experiences prior to assuming full-time teaching responsibilities, as opposed to the state's alternate route program that assumes one can learn how to teach on-the-job.

Students

Trenton State College presently serves approximately 6,000 undergraduates and 2,000 graduate students. Entering students' SAT scores have been rising steadily (now a combined average of 1,100) and admissions is becoming increasingly competitive. Only 39 percent of undergraduate applications are accepted. Enrollments in teacher education are increasing as employment opportunities and salaries increase. Currently, approximately 75 students complete the elementary program, and 50 students complete the secondary program (approximately 6 each in English and math) yearly. The secondary program is almost evenly divided between males and females while the elementary program is predominately female. Minority enrollment is small, but there are college efforts to recruit more minority students.

Generally respondents are very positive about the quality of students. There are the usual concerns about the subject matter background of some of the elementary students in some of the subject areas, but overall respondents

felt students were well prepared academically and professionally. A particular point of pride is that teacher education students have higher average SAT scores than the college average. And because of the high expectations in the program, academically and professionally, students must be really interested in becoming teachers to complete the program. Students are scoring well on the NTEs and graduates are in demand by schools.

Faculty

There are approximately 20 professorial faculty in the Department of Elementary/Early Childhood and Reading, 15 of whom hold doctorates. All of the 20 faculty in this department have taught in public schools (3-30 years) and the majority have taught at Trenton more than 20 years.

All faculty are involved in supervision and integrating professional classes with fieldwork. Recognition of the importance of the field experience is evident in how supervision is counted as part of faculty load. Faculty get 1.2 hours (toward a 12-hour semester load) for the supervision of each student teacher. Supervision of 10 students would relieve one of any other teaching responsibilities for the semester.

Two professors in the English department, both of whom have doctorates, teach the secondary English methods course and the required teaching of writing course. Six professors (5 with doctorates and all with public school teacher experience) in the math department list math education as either their major or minor field. Most faculty in these programs have taught at Trenton for more than 20 years. Some respondents feel that a potential future problem is the college's reluctance to hire teacher educators in the academic departments. Already there is only one faculty member with public school experience remaining in the English department. The situation in the math department,

where 75 percent of the faculty has had public school teaching experience is more reflective of staffing patterns in the past.

Policy Context

Like all programs preparing teachers in New Jersey, Trenton is in the midst of implementing new state-mandated standards for entrance and certification of teachers as well as a state-mandated curriculum for prospective teachers. The most controversial changes include the limiting of professional studies to 30 credits, the limiting of the curriculum to the Boyer topics, which was originally the curriculum for the state's alternate route program, and the move to a generic K-12 teacher certification program.

The 30-point restriction has already caused reduction or elimination of subject specific methods courses for prospective elementary teachers and most foundation courses. Individually and collectively, faculty are trying to incorporate the Boyer topics, but the adoption of a K-12 certification has not taken place yet, although a central field experiences office and a similar three-year series of field experiences is in place. There is great concern that graduates of secondary and elementary programs are eligible for K-12 teacher certification despite the fact that the programs are preparing them for either elementary or secondary teaching. It is unclear at this point whether the state will require a single preparation program or whether the Trenton faculty will adjust their program to the reality that students are certified to teach K-12.

Given the uproar generated by the establishment of an alternate route program, it was interesting that very few respondents mentioned the state's alternate route program directly. More were concerned about the 30-credit limit on professional studies, the mandated Boyer topics and the generic K-12

teacher certification. The later two changes represent ways the alternate route program has influenced the college program. But the College has also influenced the alternate route program since it operates three regional training centers for alternate route candidates. Interaction between the alternate route program and the college program should continue since they are both in early stages of implementation, involve, in many cases, the same faculty, and compete for prospective teacher candidates.

There is a real concern about maintaining quality programs and the reputation of Trenton graduates in the face of cutbacks and restrictions in professional studies. Commitment to their students and to the schools which rely on their graduates has stimulated Trenton faculty to try to maintain the best of the old while attempting to meet the demands of the state.

Math/Writing

Math and writing methods faculty are frustrated with the limited amount of time permitted in the elementary programs as revised according to state guidelines. The credit restrictions are less constraining in the secondary program because the students do not have to be prepared to teach so many subjects. All Trenton graduates must take six credits each of math and writing as part of their general education requirements. Math majors obviously take more math; English majors are required to take a third writing course and two methods courses, one of which is devoted to the teaching of writing. Prospective elementary teachers will take more math and English if they major in either subject. Their math methods and language arts methods courses are integrated with the junior professional experience. No particular approach to the teaching of either subject is emphasized.

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RESPONSE TO SITE REPORT

Phillip A. Ollio[6]

Teacher education programs at Trenton State College are in a continuous state of flux, always attempting to adapt to the changing needs of society including the changes in technology which help the human effort. All programs at Trenton State College are in complete compliance with the laws governing teacher education in New Jersey. There is a continuous effort to upgrade faculty and to place faculty in new positions as the demands occur.

The College has just instituted a new Center for Instructional Enhancement, which is available to faculty who wish to improve their teaching skills. The School of Education has developed a series of television tapes which are used by faculty to improve techniques for supervision of students in our various field experiences.

Since we operate two classrooms of Head Start children and a day care drop-in center, we think we have a unique structure in that these centers provide our students the opportunity to work with children in the early stages of their programs. They provide college staff opportunities to see what types of interaction occur between college students and children. They also help students to gain insight into whether or not they have chosen the right field.

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UNIVERSITY OF CALIFORNIA AT BERKELEY
DEVELOPMENTAL TEACHER EDUCATION PROGRAM

SITE REPORT

Marianne Amarel[7]

Background

The Developmental Teacher Education Program (DTE) at the University of California at Berkeley is a two-year postgraduate program leading to a multiple subject (elementary) credential for preservice students. DTE was inaugurated in 1980 as an experiential program and was granted regular status by the California Commission on Teacher Credentialing in 1986. Current enrollment is 30, the maximum projected size, which includes about a third inservice students, some of whom are working toward a Learning Handicapped Specialist credential.

Housed in the Division of Educational Psychology of the Graduate School of Education, DTE has several distinct historical, conceptual, and structural features. The program was initiated by a small group of faculty, who were dissatisfied with the limited emphasis given to knowledge of human development in teacher preparation programs. The design of DTE was guided by the working assumption that a grounded understanding of developmental principles is the best foundation for a teaching career. The productive application of theoretical knowledge to teaching and learning is a primary goal of the program, and the central theme of the research activities of both students and the faculty most closely associated with DTE.

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[7]Marianne Amarel is a senior researcher with the NCRTE.

Organization

The small student body traverses the program as a cohort for a two-year, full-time sequence of courses and field experiences. The academic components are organized around two core seminars which span two years. During the first year, the seminars focus on theories of human development, particularly on cognitive, social, moral, and language development. Curriculum analysis is emphasized in the second year, particularly the application of developmental principles to teaching mathematics, science, and literacy. Parallel to the core seminars, more traditional methods courses in elementary school subjects are offered in compliance with state requirements. The practicum comprises multiple teaching placements, five in all, which are monitored by university staff, and backed by a weekly supervising seminar. Students are required to complete a thesis for an MA degree based on original research related to development and education.

Conceptual Platform, Relation to Program Structure

DTE may be regarded as an effort to construct a teacher preparation program de novo. The building blocks are made of largely traditional materials, but bear different weights or serve altered functions in the curriculum. The program design derives from a tripartite view of the goals of teacher preparation. It seeks to (a) provide teachers with an understanding of the principles of human development, including the attributes of hierarchically ordered developmental stages, (b) bring these stages into alignment with the core content areas of the elementary curriculum, and (c) help teachers translate the developmental principles into pedagogical decisions, judgments, and practices in school settings.

The principal model of development espoused by the DTE faculty is the Piagetian explication and documentation of cognitive growth. The first two domains, the description of developmental stages and their intersection with content areas (the genetic and the epistemic in Piagetian terminology), make up a large portion of the academic component of DTE. The main vehicles for learning to apply developmental principles in the classroom are the student teaching placements and the supervision seminars.

The concept of development bears a full cargo of meanings in descriptions of program goals. It has near universal application, in that individuals at all levels of the educational chain are considered to be in the throes of development: students, student teachers, supervisory teachers, the university faculty, and therefore, the program itself. This rather comprehensive perspective provides the rationale for the organization and the enactment of the program. For the students, the two-year sequence of coursework is necessary to allow the spiral of learning, reflecting, and relearning for a higher level of understanding to occur. Developing the problem-solving skills needed for transforming principles into instructional action requires experience in varied settings, and the opportunity to reflect on and assimilate these experiences. Placing students in five different schools during the two years and engaging them in research for their master's thesis are the two strategic experiences designed to support the integrated understandings of prospective teachers. For the faculty, the size of the student cohort and the length of the training affords the opportunity for their own cycle of teaching, observing, reflecting, and recasting of understandings and practices.

Views of Good Teaching

The program promotes the view that good teaching rests on an extensive base of knowledge. Two kinds of knowledge are essential sources of instruction: understanding of developmentally linked cognitive competencies of individual students and knowledge of school subjects. The productive alignment of the students' current understandings with the demands of the curriculum is the heart of effective instruction. This alignment is not regarded in mechanical terms--no simple match between a student's developmental stage and an instructional treatment is assumed. Constructing individually appropriate instruction is regarded as the teacher's central responsibility, accomplished by performing cognitive task analyses and using knowledge of age-appropriate developmental principles.

This view of good teaching does not demand wholly new instructional practices or classroom structures. The surface look of classrooms falls within familiar, if not commonly found settings: activity centers, hands-on experiences in both math and writing, and necessarily, freedom from the constraints of a highly standardized curriculum. The program staff recognizes current curricular organization and mandated outcome measures as obstacles to the kind of teaching they espouse, but are intent on stretching and testing the limits of status quo classrooms.

Learning to Teach

The application of developmental knowledge in teaching is viewed in problem-solving terms. The program offers students strategies and examples of effective practices, along with the opportunity to rehearse these in classroom settings. It is made clear, however, that as teachers, they will need to

devise their own approaches, to find their own solutions to bridging theory and pedagogical action.

An essential program goal then is to enable teachers to construct, in the philosophers' term, the practical arguments for their instructional acts and judgments. The model of collaborative supervision has been devised to realize this aim. It calls for the supervising teacher and a university supervisor to join with the student teacher in promoting the development of all involved. The model is not fully functional. Trying to make collaborative supervision work brings the program face-to-face with the realities of schooling. Classroom settings with supervising teachers who understand and exemplify a developmental approach are not abundant. The paucity of such settings is not merely a logistical obstacle; to be fully realized, the model requires the contribution of each of the participants' roles in the collaborative triangle. This is necessary not only for the students' benefit but for developing a better understanding of the potential of the model and the unique way each role advances student learning.

The desired integration of the academic and clinical components of the program is also affected by the distinction between regular university faculty, who do not supervise student teachers, and the adjunct faculty and staff, who have major responsibility for this aspect of the program. The division between the two kinds of faculty may be less sharp than is common on many campuses but is present and exerts an influence not congruent with program goals.

Mathematics and Writing

The courses dealing with teaching school subjects reflect the centrality of the Piagetian model in the program. The development of constructs related

to mathematical and natural phenomena have been far better elaborated by the Genevan school than those implicated in social, moral, and linguistic growth. The core seminars in mathematics and science thus work through strands such as number, time, measurement, conservation, and so forth, in some detail. These domains are in fact used as major vehicles for conveying knowledge of developmental stages. In the core seminar concerned with literacy, on the other hand, the ideas are more often derived from what has become known as the process approach to writing. While conceptually compatible with a developmental posture, there is no parallel sequence of stages and clinical assessment procedures in these areas. Social studies is not treated in the core seminars but is given some attention in the methods courses.

Contributions of Undergraduate Education

As a group, the faculty has given little systematic thought to what a good undergraduate base for teacher preparation might be. Although individually, faculty members point to weaknesses in student preparation in one or another area or skill (language development, geometry, writing), the caliber of students is judged to be generally high and their educational attainments acceptable. Where that attainment is uneven, the faculty is ready to adapt instruction to deal with individual differences.

Evaluation and Research

The distinction between evaluation and research tends to be blurred in the work generated in connection with the DTE. The program is subject to a great deal of scrutiny. Periodic external evaluations are state mandated and are conducted by a specialized campus unit. Students are evaluated by their clinical supervisors, and in addition receive course grades.

A more comprehensive effort to document effects is an integral aspect of the program. It is carried out by faculty, graduate students, and the DTE students themselves in their master's thesis. These activities go on at different depths. At one level, the students regularly rate their courses and field experience and evaluate their own progress. A number of instruments have been devised in an effort to assess student learning and program effects. These evaluation and research instruments embed the rationale for the curricular goals and provide the best extant articulation of the program.

The purposes and evolving plans of the program are described and explicated in a number of reports and research papers. Given that the program is grounded in a body of theory and related research, contributing to that corpus of work has occupied the faculty and some of the staff even prior to the inception of DTE. The tasks of translating and applying developmental knowledge to instructional practice are seen as the essential and problematic aspects of teacher education. In a sense, the issue Piaget's wryly tagged le question americain--the concern with the pedagogical applications of the cognitive structures uncovered by the clinical method--serves as the major intellectual wellspring for the research associated with the DTE.

Program Character

DTE has the feel of a conceptually integrated, and structurally articulated enterprise. The impression is conveyed mainly through the program's history, and the particular theoretical base on which it rests. The core faculty group who designed the program has also been implementing it, and its membership remained quite stable. The Piagetian model of cognitive and social development has an established nomenclature and a well articulated methodology for building the evidential base of the model. By using the

Piagetian constructs, methods, and terminology as major components of the curriculum, the program projects uncommon conceptual coherence.

These same features, however, also give rise to perceptions by faculty in other divisions within the School of Education that the DTE is somewhat insular and ideological. How deep these feelings run, and how much of a threat they pose, was difficult to determine.

Resources

Compared to the other teacher preparation programs at Berkeley, not to mention the country at large, the DTE has exceptional resources to draw on. The student body is of high caliber. The students' undergraduate GPA is 3.0 or better and candidates must earn passing scores on the NTE prior to entering the program. They are prepared to invest two years in teacher preparation when one year of study would gain them a credential in other programs. The faculty interprets this as a desire to learn something in depth and to have time to judge their own suitability and commitment to teaching.

The faculty members, core and adjunct alike, are committed to the program, and are accomplished and recognized in their special fields. The expanded staff needed to instruct the additional year and to arrange and monitor the multiple placements makes the program expensive for the School of Education, a fact noted by both the dean and nonprogram faculty.

The level of support DTE has secured presents a paradox. It enabled the program to evolve, experiment, and to produce superior students--an outcome acknowledged by both the dean and nonprogram faculty. Yet the dean, a nationally recognized advocate of reforming teacher education through raising standards, would like to see DTE accomplish its goals in one year. The larger

forces behind doing teacher education "on the cheap" are clearly visible in this instance.

DTE as Experimental Program

Although the Commission of Credentialing has regularized the status of DTE, it continues to be perceived and to operate as an experimental program. The faculty consider it in evolution, responsive to research findings and the ongoing evaluation of student leanings and opinions. From the administrative perch, DTE is experimental in that it consumes greater resources than the other credentialing programs at Berkeley. DTE is thus vulnerable to reduced resources.

Its character would also be jeopardized by an attempt to freeze it in its current form. Just how easily the program could absorb substantial faculty turnover raises an interesting issue. If the current staff prove irreplaceable, it will not be for the possession of a unique body of knowledge or skills. It is the common history and the well worked through perspectives and convictions that new staff would have to absorb and adopt for the program to continue evolving in its current directions.

On the face of it, external forces do not pose obstacles for DTE. The program goals were easily translated into the state-required objectives, and the method courses mandated by the state do not disrupt the overall curriculum conception. The resource issue is, of course, not a wholly internal matter. Berkeley is a member of the Holmes Group and its dean a vocal advocate of reform. The establishment of professional development schools is an important aspect of Berkeley's plans, which may well intersect with similar efforts on the part of DTE.

What is DTE a Case of?

In summary, the key features of the program will be highlighted in an attempt to distinguish it from other teacher preparation programs. DTE represents a clean example of a theoretically grounded teacher education program. It may be exemplary in its conceptual coherence and the substantial effort made to link its theoretical base to pedagogical action.

The program also instantiates a training experience that focuses on a particular body of knowledge and orientation in depth. In the spirit of its convictions, DTE does not aim to provide teachers with replicable techniques, rather it expects individual students to reconstruct this knowledge in somewhat diverse ways. This approach raises the issue of acceptable variations in practice more sharply than in programs with fixed or test-driven standards. The extensive internal evaluations and the research conducted on the program may be seen as attempts to demarcate a zone of acceptable practices and to elaborate criteria for assessing them. In the world of teacher preparation, DTE has access to comparatively lavish resources to accomplish its goals. The combination of a well argued rationale and the capacity to realize it renders the program of interest to the field as a whole.

Finally, there are some speculative comments that touch on more general issues in teacher preparation. The DTE curriculum extends the traditional Piagetian corpus to incorporate work on social development and the acquisition of literacy. But it remains faithful to the Piagetian legacy in the way school learning is construed in the program. The image of individual learners, each forging his own developmental path, dominates, which contrasts with the vision of a classroom community where children learn together and from each other, helping and obstructing one another's development. The social aspects of learning, interestingly enough, are more prominent in how DTE's own

students are instructed. They are treated as a cohort, are given joint assignments, and are generally encouraged to give and take collegial support.

How to account for this discrepancy? It may arise from differences in what is to be learned by the young students and the prospective teachers. In the case of the students, learning of school subjects is central. The disciplinary knowledge comprising school subjects is commonly treated as stable or modified by circumstances. Such knowledge has traditionally been taught on an individual basis, even in classroom settings, giving prominence to the problems of individualized instruction. There is little in the Piagetian canon to counter this approach. Although the view of learning is constructivist, in the sense that individuals construct knowledge out of interactions with their surroundings, the constructivist emphasis on variations in personal knowledge is underplayed. More salient is the orderly sequence of development and the commonalities that hold across individuals. The subject of teacher preparation, however, includes a critical component of clinical knowledge which is more situational and far less well patterned than disciplinary content. It is more clearly socially constructed knowledge, lending greater credence to the social aspects of learning.

The relationship between conceptions of learning and conceptions teaching is an enduring question in education, with particular import for teacher preparation. DTE represents a sustained and constructive engagement with this issue in the practical arena of teacher education.

RESPONSE TO SITE REPORT

Paul Ammon and Allen Black[8]

Marianne Amarel's visit to the Developmental Teacher Education Program in December of 1986 was, for us, not only enjoyable but also useful. It gave us a special occasion to reflect on what we were doing in DTE, and why, and it led us to focus on some apparent discrepancies between the program in theory and the program in practice. Now Amarel's report on her visit is performing a similar function. It has heightened our awareness that DTE really is, as Amarel puts it, "in the throes of development." The program has been undergoing continued changes since Amarel's visit, and those changes are what we wish to discuss here--partly as a means of updating Amarel's report, and partly because we think the nature of the changes may illuminate what it means to take a "developmental" approach to teaching and teacher education.

It is not the basic structure of DTE that has changed so much as its content. The program is still organized essentially the way Amarel describes it, but within that organization somewhat different emphases have begun to emerge. Perhaps the most fundamental of these has to do with the relationship between learner development and the learning of school subjects. In describing the conceptual platform for DTE, the site report refers to "developmental stages and their <u>intersection</u> with content areas" [emphasis added]. Similarly, in discussing our view of good teaching, it identifies "understanding of developmentally linked cognitive competencies . . . and knowledge of school subjects" as "two kinds of knowledge [that are thought to be] essential sources

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of instruction." These statements treat development and school subjects as two rather separate entities. They imply an emphasis on the general, logical stages that stand at the forefront of Piagetian theory, and thus they represent the kind of emphasis with which the program began, at its inception, and with which it still begins in working with a new group of entering students. However, we have tried more and more to go beyond such a general, and therefore content-free, perspective on development to one that emphasizes the development of domain-specific knowledge within each of the basic school subjects.

What this means concretely is that we now spend more of our time, faculty and students alike, trying to understand, say, how children can be helped to differentiate concepts that are unique to measurement, as opposed to treating measurement merely as one application of numerical operations. Similarly, more attention in now given to the development of written language per se, as opposed to the influence of classification and seriation skills on reading and writing. The latter sort of topic is still seen as important, but is less central than before. As we have noted elsewhere (Black, Ammon, and Kroll, in press), our growing emphasis on domain-specific development has a much firmer empirical foundation in some subject areas (mathematics and science) than in others (reading and writing). But there is a need for more developmental analyses of domain-specific knowledge acquisition across the entire curriculum, and one of our goals as a program is to promote such analyses, for example, through the studies our students do for their masters degrees.

An emphasis on domain-specific development reduces the apparent separation of learner development from the content of school subjects by leading us to focus on a different sort of "intersection"--the one between the learner's current way of understanding the subject at hand and those aspects of the

subject that need to be better understood. It also reduces an apparent gap between development and subject knowledge as they are understood by the teacher; that is, by looking at the content of school subjects from a developmental perspective, teachers rework their subject knowledge in new ways that have implications for pedagogy. This sort of reworking is reminiscent of Shulman's (1986) concept of teachers' "pedagogical content knowledge," except that it is driven primarily by a consideration of the learner's point of view on the content, versus that of the teacher, and the learner's "misconceptions" are seen as partial understandings to be developed further, rather than misunderstandings to be averted or simply replaced.

Whether one emphasizes a domain-specific perspective on knowledge and development or not, there is always the question of how developmental theory translates into pedagogical practice. In this connection, Amarel mentions Piaget's reference to the "American question" regarding his theory, which we understand to be concerned specifically with the possibility of environmentally induced acceleration in the rate of progress through the stages of development. That sort of "vertical" acceleration has never been a focus of our program. However, we have shifted somewhat from an emphasis on matching the curriculum with the learner's specific level of cognitive development to a greater concern with promoting development "horizontally," that is, over a wide range across the curriculum.

This broadening of the focus on development in the classroom represents an integration of the seemingly contradictory concepts of general stage and domain specificity of knowledge. Although knowledge in any primary area of the curriculum is marked by a unique sequence of conceptual advances, there are nonetheless parallel developments that occur across subject areas as well,

for example, part-whole coordinations in classificatory logic, in relationships between numbers, and in combining sentences into a paragraph. An understanding of these commonalities can help a teacher identify relative areas of strength and weakness in a students' school work. Knowledge of the strengths provides important information on the upper bounds of a student's functioning, and it can also be used to support instruction in weaker areas.

Obviously such notions as domain-specificity and horizontal development are not new ones. The importance of domain specificity, for example, is clear in the work of Piaget (why else would he have written separate books on the development of geometric concepts, causal concepts, and so on?) and, of course, it has been emphasized a great deal in the recent literature of cognitive science as well (sometimes in the context of dismissing Piaget!). Nor are these ideas new to us. Rather it seems that the evolution of the DTE program is now recapitulating some of the development that began in our own theoretical understandings some time earlier. This is not to imply that the movement between theory and practice is all in one direction: Our efforts to teach seminars devoted specifically to development and mathematics learning, or to development and literacy, have made us more mindful of issues regarding domain-specific knowledge that have their source in teaching practice.

In some respects, the shifts in emphasis we have described for DTE as a whole also seem to be recapitulated, in turn, by individual students as they progress through the program. For example, we have evidence that some of our students move from highly content-specific views of learning to rather monolithic developmental stages during their first year and then to more differentiated, domain-specific stage conceptions in the second year (Hutcheson and Ammon, 1987). Moreover, we continue to have a strong sense that the two-year span of the program is important in allowing for this sort of "spiral of

learning" to occur. It also helps foster the social interaction and collegiality among student teachers that Amarel cites as a characteristic of our program. (Incidentally, there have been indications recently that two-year graduate programs for teacher preparation may be the rule rather than the exception here at Berkeley in the future.) Of course not all students are at the same point in the same spiral at the same time, and one of our objectives for the future, in general, is to make the program more flexible and accommodating to such individual differences. As a step in that direction, we recently extended the means of satisfying the research requirement for the M.A. to include options other than a formal thesis.

As Amarel notes, there are many teaching strategies already "out there" that would be consistent with the view of good teaching espoused by DTE. However, we have begun to collect evidence that such strategies are more likely to be found in the classrooms of teachers who are well prepared in the developmental perspective (Kroll and Black, 1987). In fact, the observation instrument designed for that research may be seen as providing a working definition of "acceptable variations in practice" from a developmental point of view.

One dimension of instructional practice that has begun receiving more attention in DTE is the social context of learning, as evidenced for example by seminar sessions focused on cooperative learning and on the social context for learning to read and write. Thus it is becoming harder to discern the contrast Amarel saw between our view and how children learn in their classrooms and our approach to working with student teachers in our program. As we have suggested elsewhere (Black et al., in press), we seem to have arrived at an opportune time and place for working toward an integration of Genevan constructivism and social constructionism.

We hope these brief remarks have at least conveyed some sense of the manner in which Amarel's visit to and report on our program for NCRTE have contributed to our reflections on the program, and therefore to the program's further development as well. We <u>are</u> "in the throes of development," and that is where we want to be. We thank Marianne Amarel and NCRTE for their contributions to the evolution of the Developmental Teacher Education Program, including this opportunity to write about it.

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UNIVERSITY OF FLORIDA, GAINESVILLE
ELEMENTARY PROTEACH AND SECONDARY ENGLISH PROTEACH

SITE REPORT

Kenneth M. Zeichner[9]

Narrative Description

The foundation for the development of PROTEACH (The Professional Teacher) was laid in 1976 when Dean Bert Sharp initiated a review of all University of Florida teacher education programs. The actual planning which led to the development of PROTEACH began in 1980 under the current dean, David Smith. Two conferences were held that year on the U-F campus. In PROTEACH I, school and university-based teacher educators from across the state considered the questions of what beginning teachers need to know, do, and be like. In PROTEACH II, University of Florida faculty discussed the national literature on various program models and considered the program components and domains of performance which were thought to be essential to teacher education programs.

Seven faculty committees were formed as a result of this second conference. These committees, which involved about one-third of the faculty, established objectives for students and reviewed the literature on each of the performance domains (instructional management, diagnosis, observations, instructional planning, and interpersonal communications). One critical factor in the development process which should be noted, in addition to the leadership provided by David Smith, is the important role played by the academic vice president of the University. This role of overall university support deserves further study. Another development-related feature which merits further

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attention is the staggered implementation of PROTEACH (elementary, then secondary). There is much to learn from this site about teacher education reform.

PROTEACH was adopted in 1983 as the official teacher education program at U-F (in elementary, special, and secondary education) for a five-year period. The first group of elementary education students entered PROTEACH in Fall 1984 and will be finishing this year. The first group of secondary education students entered the graduate fifth year of PROTEACH in Fall 1985. Both Elementary and Secondary PROTEACH are housed in the newly created Department of Instruction and Curriculum, which is chaired by Margaret Early. In each program, one faculty member has had part of his load assigned to program coordination activities. The newness of the program and its continual development was stressed to me by all of my informants.

The exploratory visit of U-F focused on the Elementary program (current enrollment--330) and on the largest of the Secondary programs, English Education (current enrollment--17). I decided not to study the Math Education Program because of a current enrollment of only 7 students. PROTEACH and its predecessor, the Childhood Education Program (CEP) have both received a considerable amount of attention within the United States teacher education community. Many of the faculty who are now involved with PROTEACH were also associated with the "humanistically oriented" CEP. PROTEACH is one of a handful of extended teacher education programs which existed in the United States prior to the current efforts to lengthen programs. It was included on our group of exploratory sites for two major reasons: (a) as an example of a five-year extended program which offers teacher certification after the fifth (graduate) year; (b) as an example of a preservice program which has made serious efforts to integrate generic Research on Teaching into its curriculum.

Organizational Highlights--Elementary PROTEACH

Elementary PROTEACH is a five-year program which offers students a B.A. degree in education after four years and a master's degree in education and certification after five years. There are two separate admissions periods for Elementary PROTEACH. Students first apply to the program during the semester they will complete 64 semester credit hours and usually enter during the first semester of their junior year. After completion of the undergraduate segment of the program, students must apply for admission to the U-F graduate school to be eligible for completion of the program with a master's degree.

Eleven of the 60 students in the original class which entered in Fall 1984 could not meet the graduate school entrance requirements and are currently completing the fifth year and certification requirements but will not receive a master's degree. Twenty-seven of the 60 students have entered the fifth year for completion with the master's degree and 22 did not enroll at all for the fifth year. Grade point average (2.6 for undergraduate admission; 3.0 for the graduate admission) and test scores (SAT or ACT for undergraduate and GRE for graduate candidates) are used to determine admission to the program. The minimum test scores are 850 an the SAT or 18 on the ACT (minimums set by the state department of education for all Florida teacher education programs) and 1000 on the verbal and quantitative sections of the GRE.

New general education and preprofessional requirements have been developed for students, in addition to the professional and clinical requirements to be described below. Students must complete a specified number of credits in certain content areas (e.g., English, mathematics) and courses in specified areas (e.g., history, literature). Approximately 60 percent of the current student body of 330 completed their first two years of undergraduate study at a Florida community college and entered PROTEACH as transfer students. This

reality places severe limits on the ability of U-F faculty to influence the substance of their students' general education. PROTEACH involves an increased emphasis on the acquisition of subject-matter knowledge for U-F elementary education majors. Students must now complete two academic specializations of 12 hours each, at least one of which must be in an area outside of the College of Education.

The structure of the professional education component of the program is fairly typical of elementary programs nationally, except for the additional two semesters. Students begin their six-semester sequence with an introductory course and complete methods, foundations, and practicum work throughout the rest of the undergraduate and graduate components of their program. There are a few key courses in this program which are unique and which would be especially important in any further study of this site. These courses (Research in Elementary Education, Practices in Childhood Education, and the master's seminar) are concerned with helping students become intelligent consumers of and producers of classroom-related research. (The generic research on teaching and the Florida Performance Measurement System [FPMS] are introduced to students in these classes.)

These are four practicums in the program which are completed while students are also enrolled in methods courses. During each of the practicums students spend 11 hours per week in an Alachua County School for one-half of a semester. The internship, which is equivalent to a student teaching experience, involves 11 hours per week in a school for the first half of the semester and full time in a school during the second half. Supervision is conducted by four teams, each composed of a faculty team leader and two graduate student field advisors. The graduate students tend to concentrate on the supervision of practicum students, while the faculty tend to focus in interns.

All fieldwork is complemented by campus seminars led by U-F supervisors. There is a campus laboratory school which is utilized for some field placements, but it does not appear to have a major influence on Elementary PROTEACH.

Faculty typically take on a team leader position as one-half of their load, although two team leaders I spoke with during my visit were splitting one position at a quarter time each. A supervision course was offered last summer for the first time to prepare new field advisors for their roles. An Elementary field experience handbook specifies certain minimal activities which must be completed during each of the clinical experiences. This specification of the field experience curriculum, although minimal in scope, shows that to some extent faculty think of the role of field experience as part of learning to teach rather than viewing the field as a place to merely demonstrate that which has been previously learned.

Key Issues--Elementary PROTEACH

Views of Teaching

The program is directed toward the preparation of the "professional teacher" who makes decisions about what and how students will learn based on research as well as on clinical insights. While the specific aspects of this view of good teaching were defined somewhat differently by each informant, nearly everyone mentioned research as an important source upon which teachers need to draw in their daily work. Research was defined broadly and was not limited to the knowledge base associated with the FPMS. All informants, with the exception of the cooperating teacher (who did not mention research at all), said something about the limitation of the FPMS and associated research. Although faculty recognized the value of the generic research on teaching,

they also spoke about the value of research on child development and subject matter research. Several informants attempted to disassociate themselves from what they saw as a narrow behavioristic bias in the "knowledge base" and connected the broad view of research among the faculty in part to the commitments of the humanistically oriented program which preceded PROTEACH.

University-based informants stressed several specific aspects of good teaching which they felt they were trying to emphasize with their students. Among these were the use of a variety of instructional approaches, the integration of subject matter across disciplinary boundaries, and teaching which is sensitive to what we know about how children learn and develop. Most striking was the apparent emphasis on preparing teachers who are thoughtful and reflective about their work and the emphasis on preparing teachers who will actively confront institutional contexts that are obstacles to the accomplishment of their goals and to the development of children as independent and critical thinkers. All faculty were able to talk about what teachers need to know, do, and be like in order to teach in the way desired, in part because our questions were prepared in exactly the same manner as those in the program development process.

There was a striking contrast between the comments of the one school-based informant and those of the university-based informants. While all of the university informants stressed some aspect of purposefulness and reflection in teaching, the use of research knowledge and the importance of subject matter, the school-based teacher educator's comments focused on the routines of teaching and classroom management. Noticeably absent from the school-based informant's comments were some of the main ingredients of the PROTEACH agenda. This gap between the comments of field- and university-based teacher educators is typical of the problems faced by teacher education

programs. Several faculty mentioned that better coordination between the field and campus components of the program was a priority area and also noted that much progress has been made in this area in the last several years.

There was nothing unusual about the comments related to the informants' definitions of good math teaching and good writing teaching. In math the emphasis was placed on developing positive attitudes toward and an enjoyment of the subject, on the understanding of concepts, and on problem solving and critical thinking. All of this was seen as in opposition to the emphasis on the mechanical solution of algorithms which is stressed in many of the schools where students will work. In writing there is a commitment to "the writing process" in a general sense, where writing is modeled, demonstrated, and participated in. The teaching of writing is dealt with in the program by drawing on a wide variety of research and instructional strategies. Interestingly, at least some sections of the required math content course deal with the pedagogical implications of the subject matter.

Students

In many ways the students in Elementary PROTEACH are typical of those in elementary programs across the country. They are mostly white females (from Florida community colleges) with very few minorities and males. Although there are currently few minorities in the program, a faculty member has been assigned the task of recruiting minority students into teacher education. Most of the informants stressed the differences between the students in PROTEACH and those who were in the old program. Standards for admission were raised with the adoption of the new program, and some of the students who would have been admitted into the old program could not get into PROTEACH.

The current students are described as generally very committed to teaching and as representing a wide range of academic abilities. Although most faculty felt that the overall ability of students is better than it was three years ago, they still discussed the problems many students have with their own writing and mathematics. The fact that some students have gone through the first four years of the program and cannot qualify for admission to graduate school (at least 11 of the original 60) presents a serious problem for the faculty right now. There is speculation that the entrance requirements will be raised further in the near future to lessen the likelihood of this situation continuing.

There is apparently some effort among the Elementary faculty as a group to do something to improve their students' writing. Several people spoke about an agreement among faculty to use student journals and to stick to high standards in the acceptance of student work. The character of the student body does ap-pear to influence the program in at least one respect. Because students come into PROTEACH lacking at least some of the subject matter knowledge which faculty thinks they should already have, time must be spent in the methods courses teaching content that at least some faculty feel should be taught prior to methods work. All in all, there appears to be nothing unusual about the student body in Elementary PROTEACH. Many of the comments of the faculty (e.g., about student's academic skills, problems in recruiting minorities) were strikingly familiar.

Faculty/Staff

With the exception of one campus-based informant, everyone seemed to have a sense of the program as a whole. While people were not necessarily aware of the specific content in their colleagues' courses, there appears to be an

unusual degree of teamwork and cohesiveness among faculty in this program. Despite differences in views expressed about the specific nature of good teaching and other program-related matters, faculty seemed to have a genuine liking for each other and a shared commitment to a set of general goals. There seems to be a genuine concern for teacher education at this site--to create the best possible program and to keep improving it. The degree of dialogue among faculty about teacher education seems unusually great. Weekly faculty brown bags concerned with preparing more thoughtful teachers is one example of how this dialogue occurs. The degree of interaction about teacher education across departments, which includes several faculty from the Foundations Department, also seems atypical and important.

Policy Contexts

The activities of the state education department have definitely had an influence on PROTEACH. The required use of the FPMS throughout the state, the statewide Beginning Teacher Program, state certification exams, and statewide minimum test scores for entry into teacher education programs are but a few manifestations of this influence. Also relevant, given our interests in writing, are the statewide writing enhancement program in grades 10-12 and the "Gordon Rule" which places some emphasis on writing in lower division undergraduate courses.

Florida is an example of a state where the state education agency has been fairly active with regard to teacher education. Most important, the policies developed in Florida have had much influence on other states throughout the country. Other contextual influences to be kept in mind are the apparently widespread exposure of cooperating teachers in Project TEACH and, to a lesser extent, to the Florida Writing Project. Also state education

department control of the K-12 curriculum seems to be relatively more centralized and explicit than in other states. The teacher informants made many references to state-dictated objectives and content.

Organizational Highlights--Secondary PROTEACH

Secondary PROTEACH is a five-year or fifth-year program, depending upon a student's specific background upon entering it. For the majority of the current students who did not complete their undergraduate work at U-F and/or who did so many years ago, this is a fifth-year program similar to many other programs around the country in which students complete most of their professional education coursework at the graduate level. Students first complete a bachelor's degree in a college of liberal arts and sciences, which includes a full academic major in one of several designated subject areas. They complete a master's degree in education after their fifth year of study. A 15-credit educational foundations requirement (similar to the one completed by Elementary PROTEACH students) is completed either as an undergraduate education minor or during the graduate year. Students must meet the admission requirements for the U-F graduate school to enter the fifth year of the program. A 3.0 GPA for all upper division undergraduate work and a minimum score of 1000 on the GRE is required for admission. This is only the second year that Secondary PROTEACH has been in operation.

My visit focused on the largest of the secondary programs, English Education. The program can be completed in two semesters of 18 credits each or in two semesters of 12 credits each, plus summer work. All Secondary PROTEACH students begin their fifth year by taking a general methods course, Effective Teaching in the Secondary School. This course is s mewhat similar to the elementary education research course, in that students are exposed to

the FPMS and to other generic research on teaching material. For example, students are expected to know each of the FPMS domains, to be able to recognize the components of the domains in classrooms, to observe each other with the FPMS instruments, and to demonstrate their proficiency on selected aspects of the domains.

After completion of this general methods course, students complete two special methods courses which deal in part with the teaching of writing. In English Methods (fall semester) and Language and Composition (spring semester) students are exposed to the ideas and research of a wide variety of people whose work either focuses directly on, or bears upon, the teaching of writing (e.g., how children acquire and use language). The instructors for both courses attempt to develop close links between the coursework and students' experiences in schools. There is a bias in both courses toward a process approach to writing which includes providing students with many opportunities to write in class and then to analyze their writing. Both instructors expressed some reservations about the sometimes mechanical use of the "writing process." They were much more qualified in the endorsement of the writing process than those in Elementary PROTEACH and gave several specific examples of how they each go beyond presenting just one approach to students. Both instructors also felt that they approach the teaching of writing somewhat differently than their colleague, although they (and I) are not totally clear about the exact nature of these differences. Despite any differences in approach, both instructors stress the interrelationships between writing and the development of language in general.

PROTEACH students complete two three-week practicums prior to student teaching. One placement is in a middle school and the other is in a high school. Students are sent out to schools in pairs for their practicums, in

part to facilitate the completion of specific teaching analysis tasks which they are required to complete during each practicum. Student teaching occurs during the spring semester, following a week of orientation to the school site at the end of the previous semester. Student teachers begin teaching during the third week of the semester, and for the next seven weeks they teach two classes per day and observe a third. After seven weeks all campus PROTEACH classes are canceled, and students increase their teaching load to four classes. Supervision is conducted by both faculty and graduate assistants. Because of the way in which campus and fieldwork is scheduled, any future visits to this site would have to be carefully planned.

Key Issues--Secondary PROTEACH

Students

The students in the secondary PROTEACH program are described as older, more mature, and brighter than those in the old undergraduate program. (Some evidence with regard to the superior academic qualifications of PROTEACH students apparently exists in the dean's office.) There are no minorities in the current cohort but, unlike the female-dominated elementary program, the gender breakdown here is equally male and female. Somewhere between one-third and one-half of the current group did not complete their undergraduate work at U-F, and only about one-third of them are recent B.A. graduates. The majority of the students are older and more mature than those who were in the old program, and several have had several years of work experience subsequent to completing their undergraduate degrees. The Secondary faculty were much more positive in the description of the academic capabilities of their students than the Elementary faculty. The enrollment in this program is expected to rise next year to around 30, based on assessments of undergraduate English

majors at U-F who have declared education minors, although given the large proportion of non-U-F students who enter this program it would seem hard to predict future enrollment. More out-of-state students are enrolled in this program than in Elementary PROTEACH (currently around 15 percent).

Faculty

The Secondary PROTEACH faculty seem less cohesive as a group than the Elementary faculty. Although all Secondary students take an introductory course and a general methods course together as a group, faculty seem to think more in terms of individual majors (English Education, etc.) than in terms of an overall program. This may be an incorrect perception on my part because of the structure of my visit, but if it is true, it is not unusual. The two programs, Elementary and Secondary PROTEACH, also seem to be very separate from each other, even though they are both housed in the same department. No Secondary faculty member, with the exception of Margaret Early, appears to attend the weekly brown bags on "Reflective Teaching." One thing that struck me during my interviews with Secondary PROTEACH faculty was the way in which they continually referred to specific research studies when explaining the content of their courses. This was much more true here than with the Elementary faculty, who mostly described topics covered. This use of specific research to justify practices is something which may also be true of their interactions with students.

Views of Teaching

Secondary PROTEACH, like the Elementary program, is guided by the desires to prepare the professional teacher who will be a leader in the schools. The change in the new Secondary program involved placing a stronger emphasis on

the acquisition of subject matter knowledge and on the use of research as a source to be drawn upon in making teaching decisions. Here, as in the elementary program, there is an emphasis on several kinds of research: (a) generic research on teaching, which includes both the FPMS and other sources, (b) subject matter research (e.g., on the teaching of writing), (c) developmental research (e.g., on adolescent development).

There seems to be a somewhat consistent view here about good teaching of writing that emphasizes the interrelationships between writing and other aspects of a student's development (e.g., language development) and the social, cognitive developmental factors which are associated with writing. This view of good writing teaching is biased toward the process approach and is seen by faculty to be in opposition to an overemphasis on form (i.e., grammar and spelling) prevalent in surrounding secondary schools. Faculty members also place much emphasis on the value of modeling provided by the teacher being an active reader, writer, and lover of language and literature him/herself.

Learning to Teach

The program materials discuss a spiral curriculum through which students are first introduced to broad generic teaching principles in interdisciplinary classes, engage in subject-specific applications of these principles in methods courses, look for examples of the principles in clinical settings, and then practice the principles in their field placements. "The original intent was that we would have a program and not just a series of courses."

Several examples were described to me during my visit which were consistent with this scenario (e.g., the way in which the FPMS domains are handled). There also seems to be a tendency among faculty to construct

assignments which extend from one setting to another (e.g., from the methods classes to the field and vice versa).

All of the campus-based informants spoke naturally about how their specific courses related to the clinical elements of the program. Interestingly, this interrelationship between campus and the field includes the use of the field and the practicums to inform the campus coursework. For example, one informant told me how he regularly uses comments from the student's field jour-nals as the basis for discussions in the methods courses. All of the infor-mants also spoke about the contribution made by the liberal arts courses and general education to the making of a good teacher. Everyone seems to be ex- tremely frustrated by the fact that there is little or no contact with students prior to the fifth year. The role of personal background in learning to teach also was emphasized by faculty. Everyone seemed to feel that the work and life experiences of this generally older group of students have made a valuable contribution to their preparation as teachers.

Major Impressions

There are several things that particularly impressed me about PROTEACH during my two-day visit. First is the strong presence of generic research on teaching in the preservice curriculum. Each of the two programs studied has a specific course (which students take early in the College of Education part of their course of study) that exposes them to recent process/product research findings, to the Florida Performance Measurement System and related documentation, and to other classroom observational systems which focus on discrete teaching skills. Several of the faculty and graduate student field advisors (the term used for supervisor) have become state certified in the use of FPMS.

The presence of FPMS in the PROTEACH curriculum is very evident. It was brought up by informants for one reason or another in most of the 11 interviews I conducted. Students in both programs learn about, practice using, and have used on them the domains of FPMS. The "tremendous growth in the knowledge base for teaching in the last 10-15 years" was cited by several people as one of the prime motives for the redesign of U-F teacher education programs.

There is no doubt that David Smith and his faculty have made a serious effort to expose PROTEACH students to generic research on teaching. The two research courses mentioned above address it explicitly and the methods and foundations courses (which cover subject-specific research on teaching and research in learning and development) are constructed (according to the professors) in a manner which assumes that students have already been exposed to the generic material. Despite the inevitable gaps between programs' rhetoric and reality (i.e., people implementing the agreed-upon goals to varying degrees and in various ways), I doubt that we could find a preservice program which places as much emphasis overall on the development of generic skills at PROTEACH.

The second most noticeable aspect of the U-F programs is the current emphasis on reflective teaching on the part of a core group of faculty in Elementary PROTEACH and the desire by faculty in both programs to go beyond the domains of the FPMS in their approach to research. All of the faculty I spoke to in both programs want their students to do much more then implement the findings of research on teaching in a mechanical way. While the faculty seem committed to seeing that their students understand and become proficient in the domains of FPMS, they all want their students to see FPMS as only one of many sources which are drawn upon by the professional teachers in the process of making decisions about what is appropriate in a given situation.

Subject matter research and research on development also play prominent roles in the PROTEACH curriculum. I was surprised by the activist positions which several faculty want their students to assume (e.g., confronting and changing the school context, standing up to others when you think what you are being asked to do is not right).

Several faculty were very critical of what they perceived to be the narrowness of the FPMS and its research base, were very specific as to what they saw as its limitations and as to how they try in their own classes to seek to prepare teachers who can use this resource intelligently rather than mechanically. Several of the Elementary faculty, Margaret Early, and field advisors and foundations faculty meet on a weekly basis to discuss ways in which they can help their students become more thoughtful and reflective teachers and to engage in the same kind of reflection about their own program that they are asking of their students. I attended one of these brown bags, in which the research of a social psychologist on ways to stimulate reflective thought was discussed. I did not meet anyone in my two days at U-F (and I interacted with several more people than I formally interviewed) who was a "true believer" in generic research on teaching to the point where they saw mastery of the FPMS domains as the panacea it is billed by some to be. The emphasis on the generic research is indeed an important part of PROTEACH, but there is much more to PROTEACH than its attention to generic research on teaching.

The third most striking feature of PROTEACH is related to its categorization as an extended program of five years in length. While it is true that students complete five years to become certified as teachers, most students do not complete all five years at U-F. In the Elementary program about 60 percent of the students enter PROTEACH after completing two years of work at one

of Florida's community colleges. At the other end, there has been a good deal of attrition between the fourth and fifth years in the first PROTEACH class. Of the original group of 60 students who entered in Fall 1984, 22 students did not return for the fifth year, and of those who did return, 11 could not meet the entrance requirements of the graduate school and are completing certification without the master's degree.

In the Secondary English program only about one-third of the current group of 17 fifth-year students are recent B.A. graduates, with most of the current group having completed a B.A. 10-15 years ago. About one-third of the students did not complete their B.A. at U-F. While both programs are billed as having integrated five-year courses of study, the reality is quite different. This reality has several important consequences for the program. For example, although PROTEACH involves increased attention to the acquisition of subject matter knowledge (as compared to the old programs), there are definite limits on the degree to which College of Education faculty can influence the nature of this acquisition.

I left Gainesville with a very different image of a five-year program than the one I brought to the visit. I wonder if there are any five-year programs in which most students complete the full program at one institution. The high proportion of transfer students and the attrition between the undergraduate and graduate years seem to be important issues in the Elementary program, while the fifth-year-only contact with many students seems to be a significant constraint in the Secondary program.

The next most noticeable feature of PROTEACH is the sense of purposefulness which is evident among the faculty in the program and the degree to which a core group of faculty seems to work together on teacher education. I doubt that we could find a program in which as much thinking has gone on about the

structure and substance of teacher education programs as has occurred here. Even acknowledging the gaps which appear to exist between the programs as described in the written materials and what appears to exist in reality (e.g., I do not think research has been as systematically integrated into courses as the written descriptions would lead one to believe), there has been, and continues to be, an unusual amount of effort put into the initial and continuing development of these programs. Even though several faculty were unaware of exactly what is taught in courses other than their own and several informants commented about the need for more collaboration among faculty, I was struck by the degree to which faculty members already interact about the preparation of teachers. The weekly teacher education brown bags, which include faculty and staff from Instruction and Curriculum and Foundations, is probably atypical for an institution of this size and type.

According to several informants, spending time on teacher education is not rewarded here any more than it is in other research intensive universities (i.e., very little). People are spending a lot of time trying to make PROTEACH a good program. The in-progress and developing nature of the programs was expressed to me in one way or another by every informant. No one wanted to portray PROTEACH as being in its final form, and several informants pointed out specific ways in which the programs have changed each year. Either I have misperceived the amount of effort devoted to teacher education at this site or there is something very interesting going on here that warrants further study. How to mobilize a faculty to commit time and energy to the improvement of teacher education programs is an issue of great importance, particularly in research-intensive institutions such as the University of Florida.

Some informants felt that agreement among faculty has occurred only at a very general level (e.g., to a research-based program) and that basic

ideological differences have not been confronted or resolved. To some extent I did find variety in perspectives on many issues. The FPMS and the knowledge base underlying it is a case in point. While some faculty spoke very positively about the value of the intelligent use of the FPMS domains, others saw this system more as a political reality that must be dealt with for the protection of students who would be confronted with it during inservice. Some faculty members stressed the importance of a developmental perspective both in a general sense and in relation to the teaching of specific subject matter and others did not. Some informants placed a great deal of emphasis on subject matter knowledge while others stressed interpersonal relationships with children, classroom management, generic teaching skills, and so forth.

Despite all of these differences, I still think the degree of agreement that has occurred among faculty is unusually great. I do not know how much more agreement one could realistically expect in an institution of this size with such a diverse faculty. Some people questioned the degree to which program implementation matches what is supposed to happen according to the plan, but there could not be much more agreement than now exists about goals. A tension between behaviorists and humanists was given as an example of an ideological difference which has not been resolved. It seems to me that one would want to maintain this diversity of orientation within a faculty and that the exposure of students to this type of diversity is of greater educational value than would be exposure to one party line.

A final issue which emerged from my visit is the tension which appears to exist between the curriculum of the campus-based components of the program and practices which are prevalent in the school used for clinical placements. It seems very clear that many PROTEACH faculty are not seeking to prepare teachers to fit into Alachua County Schools as they are now. Several of the

informants were critical of the kinds of teaching practices (in general and in relation to mathematics and writing) that many students are faced with during practicums and student teaching and as inservice teachers. Other informants stressed how they wanted to prepare students to be knowledgeable of schools as organizations so that they would be capable of acting as change agents within the system. The emphasis on grammar and spelling, as opposed to substance, and the stress on the mechanical solution of algorithms, as opposed to problem solving, are two examples of school practices which faculty feel conflict with the goals of their programs.

Despite this tension, the development of closer relationships between the University of Florida and cooperating schools is seen as a priority issue by several informants. PROTEACH has led to the increased involvement of university staff in the schools, according to some. Working toward a closer correspondence between teaching methods advocated in the program and those existing in sites used for clinical placement is viewed as a priority by some. Some people see the need to exercise greater quality control over the specific classrooms used; others stressed the increased attention to the quality of university supervision as an important factor.

A few informants argued that the programs need to take more advantage of the good things that are happening in surrounding schools, either by building a collection of videotapes of classrooms consistent with practices advocated in courses or by directly including particular people in program courses more than is currently the case. I found all of this related to the tension between the campus and schools to be strikingly familiar. Faculty seem committed to the idea that there are important things in the field for students to learn, and I sensed a desire to have more control over where students are placed and over what they do once they get there. Some people would also like

to see the mission of the program expand beyond the preparation of teachers for Alachua County Schools to a broader perspective.

RESPONSE TO SITE REPORT

Margaret Early[10]

Because PROTEACH is a dynamic program, Ken Zeichner's report, based on observations made in early December 1986, will always need updating. As it is, the site report reflects only the first year and a half of PROTEACH. With the exception of a few minor details, Ken's report is accurate, and his interpretation of the data gathered in a two-day visit is fair and indeed generous. When his facts or interpretations differ from ours, we can understand the reasons. For example, the coordination of Secondary PROTEACH, which he ascribed to one faculty member, has since the beginning been undertaken by a task force made up of six or seven professors who represent the five disciplines in Secondary PROTEACH: English, mathematics, science, social studies, and foreign languages. Since 1985-86, the first year that PROTEACH was in operation, through the current year, 1987-88, the task force has been chaired by Robert Wright. Everyone on the task force contributes to the common experiences of the students, particularly within the fall semester course, Effective Teaching in Secondary Schools.

Doyle Casteel and Wright shared the major responsibility for this course in 1986 and again in 1987, but all the task force members participated. Plans for 1988 suggest continued participation by all professors, with one assuming the major role. Team teaching in this course and in other phases of PROTEACH is, we believe, essential to maintaining the unitary and cohesive nature of the new program. It has been achieved in spite of traditional load requirements that were designed for individualist rather than collaborative

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[10]Margaret Early is chair of the Department of Instruction and Curriculum at the University of Florida which houses Elementary and Secondary PROTEACH.

efforts. Team planning, somewhat easier to achieve, has occurred voluntarily, without regard to load.

Collaborative teaching is as essential to Elementary as to Secondary PROTEACH. Zeichner's report suggests there is more collaboration among the Elementary faculty than among the Secondary. Actually, the only example of team teaching occurs in Secondary PROTEACH. The Elementary staff frequently plan together informally in two's and three's, working on course content, assignments, and modes of delivery. The brown bag lunches, as Ken notes, are an opportunity to share impressions and experiences and to suggest ways of improving various aspects of the program.

Collaboration with off-campus teacher educators (i.e., cooperating teachers) is a major thrust this year, especially on the part of Elementary PROTEACH. Right now, we are using semantics to try to nourish a concept that too few take seriously. Most cooperating teachers do not view themselves as teacher educators, even though research studies and undocumented experience suggest that, for better or for worse, they are just that. Through ongoing dialogue, initiated this winter and leading soon to more formal staff development for both on-campus and off-campus teacher educators, we hope to establish the idea that clinical teaching in the school setting is a shared responsibility and to assure that it is a consistently positive experience for prospective teachers.

Semantics contribute to the reality of PROTEACH, going beyond image-making. Students' awareness that PROTEACH is a portmanteau word, made up of professional and teacher, is a constant reminder to them of their goal and ours. Similarly, we chose the term field adviser carefully to specify the role as advisory, not supervisory. In all our field experiences, we see the field adviser, the cooperating teacher, and the university faculty member

collaborating on the series of experiences that go from four field placements in the undergraduate semesters, through the graduate internship, to the action research project developed in the PROTEACHer's final semester. The university member is termed team leader to connote his/her ultimate responsibility for the student's successful preservice experiences. It would be less than candid to imply that we have achieved in reality all the meanings contained in our labels. We still have a long way to go, but the semantics of PROTEACH are a lift along the way.

Of course, labels can get in the way of progress, too. We may be experiencing such difficulty with reflective teaching. Students and faculty have bandied the term about so much in an attempt to clarify the concept and its implementation that merely pronouncing it can, on occasion, produce groans, smirks, and echoes of Reagan's "There you go again." We continue to promote reflection in journals, discussions, reaction guides, post-observational conferences and the like, but we may have to call this rose by another name or none at all. Without the tag, though, will prospective teachers recognize their own achievement?

The site report questions two other labels in the PROTEACH lexicon: fifth-year and five-year, the former applied to the Secondary program, the latter to the Elementary. Is either label accurate? Is there a reason for the different approaches? We believe both labels are accurate if they are interpreted contextually. For prospective secondary teachers, PROTEACH requires a master's degree in education on top of a B.A. degree with a major in the subject to be taught. For some of our students, the education master's comes after they have also earned a master's degree in their subject. Many of these students have had no education courses and must make up education prerequisites before they enter the clinical teaching semesters. However, this

year, more than in the first two years, students are entering PROTEACH from U-F's College of Liberal Arts and Sciences, with 15 hours in undergraduate education courses. Next year, U-F students intending to enter PROTEACH will be formally enrolled in a 15-hour education minor. This will alleviate somewhat the problem referred to in the report that PROTEACH professors find they have too little time to get to know students before making field placements. It also adds another shade of meaning to "fifth year."

Nevertheless, many students will continue to enter the program as newcomers. Our faculty must continue to assess what is gained and what is lost in delaying prospective teachers' experience in the schools until the fifth year of their university preparation. It may be that the first year of full-time teaching must be tied to the university as it is in some other programs. An aside to this is that our PROTEACH graduates at both elementary and secondary levels are reporting that they are already prepared for the Florida Beginning Teachers Program and question whether that program is redundant for them.

Why is Elementary PROTEACH a five-year program? We believe that prospective teachers at this level need clinical experiences at the earliest possible time. For all practical purposes, that time is the junior year. As the site report states, we have little "control" over the first two years of undergraduate preparation, whether students are in community college or in our College of Liberal Arts and Sciences. We do not want more "control," beyond requiring that prospective elementary teachers include in their first 60 hours 6 hours in English, 9 hours in physical and biological sciences, 6 hours in mathematics, 9 hours in humanities, and 9 hours in social and behavioral sciences, or make up these requirements after entering PROTEACH. We do insist, however, that teachers who must know the content of the elementary curriculum

broadly, if not in depth, also need specific professional preparation over three years' time. Both the extended field experiences of PROTEACH and the additional depth in content make five years of continuous preparation (or three years beyond the general education phase) necessary.

ALBUQUERQUE PUBLIC SCHOOLS/UNIVERSITY OF NEW MEXICO
GRADUATE INTERN/TEACHER INDUCTION PROGRAM

SITE REPORT

Trish Stoddart and Sharon Feiman-Nemser[11]

This report is based on interviews with the director of the Graduate Intern Program, the director of Elementary Education at the University of New Mexico (UNM), two principals in the Albuquerque public schools (APS), and group interviews with clinical support teachers and interns.

How the Program Works

The Graduate Intern Program is jointly sponsored by the University of New Mexico and the Albuquerque Public Schools. Interns are simultaneously beginning teachers in APS and master's degree students at UNM. Interns have completed the New Mexico State Department of Education certification requirements. They take graduate courses during the summers before and after their first year of teaching. During the school year, they continue to earn credit toward their masters degree. As first year teachers, they receive support from APS and UNM personnel.

Interns receive a fellowship stipend from UNM equal to one-half a beginning teacher's salary and tuition wavers for their graduate work. With the money "saved," APS releases 17 experienced teachers to work in jointly sponsored APS/UNM programs. Nine work as clinical supervisors in the undergraduate elementary teacher education program; eight work as clinical support teachers, helping graduate interns and other APS teachers in their first year

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[11]Trish Stoddart is an NCRTE senior researcher and assistant professor of teacher education at Michigan State University. Sharon Feiman-Nemser is associate director of the NCRTE and a professor of teacher education at MSU.

of service. The clinical support teachers and clinical supervisors receive their regular APS teachers' salary plus tuition wavers for 12 graduate credits at UNM. The Graduate Intern Program thus pays for the clinical components of both the preservice and induction programs.

The program is directed by Sandra Odell, a faculty member at UNM who does research on teacher induction. Odell organizes the program with the help of eight clinical support teachers, serves as a liaison between the school district and the university, and team teaches the core seminar.

Program Components

The first summer is designed to introduce graduate interns to areas of curriculum and research that are foundations for their practicum work with children and their studies of the teaching/learning process. Graduate interns enroll in three graduate courses (9 credits). Choices include a curriculum course, a course on multicultural education, and a course on research methods. These courses reflect departmental requirements for all masters degree students. During the second summer, graduate interns develop a specialty area by taking six credits in child development, language studies, or cross-cultural studies. They also participate in a 3-credit seminar called Program Synthesis where they reflect on their experiences and complete a masters paper.

The core of the program is designed to link practical work with children with the study of teaching and children's learning. During the academic year, while teaching full time, graduate interns earn 14 credits: 3 credits each term for a seminar on teaching and learning, 3 credits each term for a topical seminar led by clinical support teachers, one credit each term for "field experiences." Odell teaches the seminar on teaching and learning with

Priscilla Norton, also a UNM faculty member; clinical support teachers attend. For their field experience credit each term, graduate interns complete a written analysis of their teaching.

Clinical Support: The Teachers and the Role

Clinical support teachers work full time with 15-18 new teachers, including 3-4 graduate interns. They are appointed for two years. Applicants must have taught for a minimum of five years and provide letters of support testifying to their excellence as teachers and their skill in working with adults. Two years ago, 80 teachers applied for the position; last year, 60 applied.

Clinical support teachers begin their contract with a weeklong orientation to the program and their role. Special emphasis is placed on providing nonevaluative support and developing good relationships with district personnel. Besides working with graduate interns and other beginning teachers in their classrooms, clinical support teachers attend the weekly seminar on teaching/learning, lead bimonthly topical seminars with their caseload, and publish a newsletter called The Link that informs beginning teachers about teaching resources and district events. They also receive tuition waivers for 6 credits at UNM. Three credits cover a weekly three-hour class with Odell where clinical support teachers discuss research on teacher development and teacher induction, share experiences and solve problems, and learn about the kinds of support that they are supposed to offer. In her research on the program, Odell has identified seven categories of support that clinical support teachers provide: system information, resources/materials, instructional, emotional, classroom management, environment, demonstration teaching (Odell, 1986).

In describing their work with interns, clinical support teachers highlighted several aspects of their role. They stressed the fact that they had no formal responsibility for evaluation. They believe this enables their interns to talk openly about issues they might never raise with a supervisor. They talked about serving as a mediator between the new teacher and the culture of the school--particularly the principal. Finally, they acknowledged that beginning teachers need emotional support for both personal and professional problems.

Graduate Interns

A third of the interns are Hispanic; the rest, Anglo. Most have graduated from the University of New Mexico, where they majored in elementary or early childhood education. While the majority are brand new teachers, a few have taught for a half to two years. Applications are reviewed twice a year by a selection committee consisting of Odell, two clinical support teachers, two principals and two UNM faculty members. Candidates must have a 3.0 GPA, three letters of recommendation (from a clinical supervisor, a faculty member and a cooperating teacher), a writing sample, and an interview with the committee. According to the director, the program looks for people who "want to grow professionally."

Views of Teaching

The director of collaborative teacher education programs at UNM described the underlying view of good teaching as follows: "We promote reflective, analytic teaching with a child-centered focus." The programs at UNM emphasize the use of instructional materials that will generate active responses from children, "whole language learning," thematic teaching, a "prepared"

environment. Going into a classroom run by a graduate intern, one would see children working in heterogeneous groups, learning centers, displays of written work, children asking questions, and teachers modeling the language and behavior they expect from their pupils.

Graduate interns are exposed to these ideas about good teaching as students in the undergraduate preservice elementary program at UNM. Since the director and many of the clinical support teachers did their training at UNM, they share these views. Being "reflective" is also a characteristic of good teaching. "The kind of teaching we're trying to foster," observed Odell, "is the kind of teaching where people are constantly analyzing what they're doing. . . . They [the interns] need to be able to verbalize why they do what they do, not only for themselves, but also to represent their programs to administrators."

Learning to Teach

The Graduate Intern Program tries to help beginning teachers transfer innovative practices into regular teaching situations "without being socialized into the system." The clinical support teachers are the key--helping interns link theory and practice, offering ideas, materials and support, team teaching, serving as an advocate. There is also an underlying assumption that preservice preparation can only provide teachers with minimum, entry-level skills. Keith Augur, formerly director of elementary education and currently responsible for all the collaborative programs, said: "It takes a lifetime to make a good teaching. Most of the work takes place post-baccalaureate." Teachers must continue to develop throughout their careers. To do so they need support and opportunities for reflection and renewal. Reflection and

professional development are dominant themes in the program. All the participants--interns, clinical support teachers, the director--are involved in their own professional learning.

Writing

In their preservice preparation, UNM students are introduced to the "whole language" approach to literacy developed by the Goodmans at the University of Arizona. The Goodmans and other researchers who subscribe to the whole language approach believe that children learn to read and write in the same way and for the same reasons they learn to walk and talk. In reading as in learning to talk, language must be all there all the time. Reading is learned in the process of using it--the way humans learn language. (Goodman and Goodman, 1981, p. 7).

UNM students are enjoined to use children's own writing as a basis for reading rather than using reading groups and basal readers. What will happen when interns try to implement this approach in their teaching? How does "whole language" fit with the expectations of the district? These questions are especially relevant given the Center's focus on how teachers learn to teach writing (and mathematics) to diverse learners.

Policy Context

In 1984, as part of a general reform movement, the New Mexico State Board of Education mandated that the district provide support to beginning teachers in their first three years of service. The Graduate Intern Program is a response to that mandate. Currently clinical support teachers assist graduate interns as well as other beginning teachers and teachers new to APS. The University of New Mexico is a member of the Holmes Group, and Odell serves on

the committee responsible for developing the institution's plan. Because of the continuity between preservice preparation and the Graduate Intern Program, one could say that UNM has a five-year program.

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RESPONSE TO SITE REPORT

Sandra J. Odell[12]

The Graduate Intern Program site report, prepared by Trish Stoddart and Sharon Feiman-Nemser, generally portrays the key program elements with accuracy. The following comments are intended to provide additional information about the program and its context. With respect to how the program works, it is important to note that the exchange of services between the Albuquerque Public Schools and the University of New Mexico results in a "no-additional cost" budget feature that exists quite independently from the more conceptual curricular or instructional features of the program. It allows the program to function without additional funding from the school district or university.

Basically, the money typically spent by the Albuquerque Public Schools to hire 28 elementary teachers is spent instead to place 28 graduate interns, who are fully certified in elementary education, in those elementary classrooms. By so doing, enough money is "saved" to pay for the release of eight veteran teachers to serve as clinical support teachers. The Albuquerque Public Schools/University of New Mexico "no-additional cost" exchange feature has been used as a model for programs at Winona State University in Rochester, Minnesota and by New Mexico State University in Las Cruces, where these universities have developed collaborative programs with local school districts.

Further in relation to how the program works, it is noteworthy that this school district/university collaboration has been in operation for 21 years. The addition, four years ago, of the teacher induction program built on this

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[12]Sandra Odell is program director of the Graduate Intern Program at University of New Mexico.

prior history of collaborative teacher training. Consequently, the cooperation and the general acceptance of the induction program by school district administrators, teachers, and university faculty was easily secured.

Considering the clinical support teachers, current research is underway to determine the personal and professional benefits of being in the clinical support teacher role. Observations and interviews indicate that clinical support teachers increase in their personal and professional confidence as a result of their experience in the program. Furthermore, they improve their skills in working with adults, and they broaden their perspectives about classroom teaching and the school district. They also garner, through their own university study, more information about why particular teaching practices work. The benefits, then, of serving in the role of clinical support teacher within this collaborative teacher induction program are significant.

The site report describes the selection process for becoming a graduate intern. By way of clarification, graduate interns are selected by the program director with information solicited from support teachers, clinical supervisors who have worked with the applicants in their undergraduate teacher-training program, principals and cooperating teachers from their student teaching, and university faculty. Interviews are not used, but selection is based on information from the above individuals, writing samples, the applicant's grade point average, three letters of recommendation, and the applicant's prior success in student teaching.

The authors of the site report have succinctly captured the essence of our view of teaching. By way of elaboration, we view teaching developmentally; that is, becoming a teacher is considered to be a lifelong process. It includes the careful reflective study of teaching practice in combination with continued knowledge building in the context of inservice activities,

university coursework, and interaction with colleagues. The underlying conceptual framework for the Graduate Intern Program includes a focus, then, on analytical and informed teaching. The program is designed to encourage the development of processes for analyzing teaching rather than singularly to provide for the acquisition of a series of discreet teaching skills.

In the site report, a question about what will happen when graduate interns implement the "whole language" approach to teaching reading is raised. The concepts presented through program coursework and activities related to the teaching of reading and writing are generally accepted by the district officials and are actually consistent with the district goals. More generally, the graduate interns typically are not opposed by administrators when they implement teaching practices that grow out of their involvement in the Graduate Intern Program.

One aspect of our program that was nicely captured by the site report, and which deserves reemphasis, is that the program is designed so that all participants, from the first year teachers through the veteran clinical support teachers to the director, are continuously engaging in their own professional development while interacting among themselves so as to engender better instructional leaders in the classroom.

TOLEDO PUBLIC SCHOOLS/TOLEDO FEDERATION OF TEACHERS
TOLEDO INTERNSHIP PROGRAM

SITE REPORT

Sharon Feiman-Nemser

Program Overview

This report focusing on the Intern Program in the Toledo Public Schools is based on interviews with eight people--three district administrators, one union leader, and three consulting teachers--and a day of observing the Intern Review Board in operation. The purpose of the Intern program is twofold: (a) to help new teachers have a successful first year and (b) to determine whether they have the necessary aptitude for teaching. Negotiated in 1981, the intern program assigns all new teachers in the system to an experienced, expert teacher for one year. These "consulting teachers" are released from their regular classroom duties and given responsibility for both the assistance and evaluation of interns. The combination of peer assistance and peer review is considered an important step toward making teaching in Toledo a profession.

How the Program Works

Consulting teachers work with 7-10 interns, who should be in their certification area/level. This matching is supposed to enhance the quality of the advice that consultants can provide and increase the reliability of their evaluation. With a pool of 15-20 consultants, the district can usually achieve such a match.

Consulting teachers observe their interns at least once every two weeks, documenting what they see going on in the classroom and following up their observations with a conference about what did and did not work. Discussions tend to focus on classroom management and teaching techniques, troublesome

areas for many beginning teachers. Often consultants offer advice and suggestions based on their own teaching experience. Besides passing on craft knowledge, they show interns how the system works. While consultants do not engage in demonstration teaching, they arrange for their interns to visit classrooms and see how other teachers handle specific problems. Consultants also offer workshops (e.g., on assertive discipline).

While some respondents highlighted the supporting role of consulting teachers, most acknowledged that evaluation is the bottom line. Consultants are responsible for determining whether their interns should receive a second one-year contract. This responsibility leads consulting teachers to take a fairly direct approach, zeroing in on problems and letting the interns know where they stand right from the start.

Twice a year (December and March), consulting teachers file a formal evaluation for each of their interns, using a form that has been part of the district's evaluation procedures since the sixties. The form is divided into four areas: (a) teaching procedures, (b) classroom management, (c) knowledge of subject matter, (d) personal characteristics and professional responsibility. All but the third category--knowledge of subject matter--are subdivided into more specific categories. The consulting teachers mark all the subcategories on a 3-point scale--outstanding, satisfactory, unsatisfactory--and also assign an overall rating for each category.

The evaluations are presented to the Intern Review Board which governs the program. The board is composed of nine members--five teacher representatives and four administrative representatives. Twice a year they spend a week listening to the consulting teachers report on their interns. Using an overhead projector to display a summary of their evaluations, the consultants take turns talking about their interns one by one, documenting and justifying

their assessments with examples from observations and conferences. Members of the review board question the consulting teachers about the bases for their assessments and about what they have done to help interns in areas where they receive an "unsatisfactory" rating. Board members are usually on the lookout for apparent inconsistencies such as an intern who receives an "outstanding" in management and "unsatisfactory" in teaching procedures. In general, they are skeptical about whether beginning teachers can really be "outstanding" at this point in their careers.

Consulting Teachers: Qualifications and Orientation

The quality and impact of the program rest largely with the consulting teachers who are carefully selected. Qualifications include a minimum of five years of successful teaching and recommendations from administrators and fellow teachers. Being a consulting teacher is a demanding role. Consultants must be able to establish productive relationships with interns and principals, make tough decisions about nonrenewal, defend their assessments to the board and give generously of themselves to their interns.

To prepare for their role, new consulting teachers attend a three-day training session at the beginning of the school year covering all aspects of the program--conducting observations, filling out forms, establishing relationships. The presenters are experienced consulting teachers. On their own time, consulting teachers have also reviewed materials on teacher effectiveness research prepared by the Educational Research and Dissemination Project of the American Federation of Teachers. The materials cover such topics as teacher expectations, teacher praise, preparations at the beginning of the year, classroom management. Besides providing the consulting teachers with a common vocabulary, this research seems to give consultants a feeling of

confidence. Now their advice and judgments have validation from research. Consultants also learn about their role by attending meetings of the Intern Review Board before they go on active duty. Consulting teachers cited watching the review board in action and talking to other consulting teachers as the most effective ways to learn about their role.

The consulting teachers said they applied for this position because they wanted an opportunity to improve the quality of teaching. As mentors and evaluators, they are indeed pioneering new roles for teachers. At the same time, the consultants I interviewed seemed to underestimate their unique expertise. When asked whether principals could do the job that consulting teachers were doing, all the consultants said "yes" if the principals had the time. Consulting teachers did not seem to regard themselves as possessing specialized knowledge which they had developed through years of teaching practice and which they were now passing on to their interns.

Interns

The interns in the program (n = 147) are not necessarily brand new teachers. Many are experienced teachers new to the district or former substitutes in the district. Consulting teachers characterize interns as enthusiastic, eager to have their own classroom, adequately prepared in their subjects but not in classroom management. Like many districts, Toledo has a difficult time recruiting minority teachers.

View of Good Teaching

When I asked whether the program was trying to promote a particular view of good teaching, almost all my respondents said "no." In fact, consultants are instructed not to push their own style, but to cultivate the strengths of

their interns and to present alternatives. At the same time, everyone talked easily about what good teaching entails and no one expressed any difficulty in recognizing it. Much of this talk reflects the categories of the evaluation form which shape the way consultants look at interns and frame the deliberations about whether teachers should be renewed.

Everyone spoke about classroom management skills as the sine qua non of good teaching. "If they cannot manage a classroom," said a consulting teacher, "they cannot teach." Skillful management covers a multitude of things including establishing a set of rules and routines at the beginning of the year, enforcing them consistently, rewarding appropriate behavior, being prepared when pupils enter the room, having smooth and efficient ways to distribute materials. Respondents mentioned personal/professional qualities that make someone a good teacher--being caring, curious, understanding. Presumably, the program tries to select teachers with those qualities.

Learning to Teach

Compared with the usual "sink-or-swim" induction of most beginning teachers, the Toledo intern program offers regular, consistent support and assistance during an intense and formative phase of learning to teach. Unlike some other programs where mentors not only support beginning teachers but also teach, the Toledo program releases consulting teachers fulltime to work with interns. The basic modes of learning are experiential--interns teach and learn from their mistakes. They also have a consultant to observe them and provide feedback and advice. Often consulting teachers pass on tricks of the trade that have worked for them. To see how more experienced teachers handle particular problems, interns can observe other teachers in the system.

In addition, they can learn about discipline and classroom management by participating in a workshop on Assertive Discipline offered by the consultants.

Since interns already have teaching certificates, they are supposed to be prepared for their teaching subjects and ready to begin teaching. They are not primarily learners but beginning teachers. People recognize that the conditions of the internship (e.g., having your own classroom and a mentor) are different from those of student teaching (e.g., being in someone else's classroom and having a university supervisor who visits infrequently). The internship program is supposed to put on the finishing touches and determine whether the interns can meet the standards of teaching in Toledo.

People do not seem to regard the program as a deliberate, educational intervention. There are no specific substantive goals that all consultants share even though they all seem to work on classroom management. Rather, the consultants are there to help the interns in whatever ways make sense. Consultants talk about their work as "support" and "assistance." Do they also foster teacher learning? Does that mean they are involved in teacher education?

Context

The Toledo schools experienced considerable turmoil in the seventies like many other urban districts. There is also a history of tension between the administration and the union. The intern program reflects a clear commitment to develop shared governance structures and move toward professionalizing teaching in Toledo. Credited as the brainchild of the union president, the program is regarded with pride by both teachers and administrators.

The program has had a major impact on the district. The presence of consulting teachers in schools has increased the information administrators have about what is going on and has led to more problems getting addressed. Once skeptical about whether teachers could evaluate their colleagues, some principals have even expressed interest in having consultants handle the second-year evaluation. Principals have negotiated their own intern and intervention program. The union and administration are discussing a career ladder in which peer review will play a major role. Like other states, Ohio is working on the internship concept and has turned to Toledo for advice.

Concluding Reflections

In Toledo, support and evaluation go hand in hand. While others have argued that these two functions should be separated, the people I spoke to believe they can go together. I wonder whether the fact that consultants have the authority to evaluate contributes to their effectiveness. After all, we expect teachers to support and evaluate their pupils.

The question of what teachers need to know about their subjects to teach them is not simple. Many of the current proposals for reform in teacher education advocate that elementary teachers major in an academic subject rather than in education. When people in Toledo say that interns are well prepared in their teaching subjects, what do they mean? Does the evaluation form shift attention from the role of subject matter knowledge in teaching by not elaborating this aspect of teacher expertise?

Finally, I am curious about why consultants do not see themselves as "teacher educators." Is it because the program was conceived primarily as a means of evaluating beginning teachers? Is it because teacher education is

considered the province of universities? Is it because current structures obscure the fact that the beginning teachers are really "learners?"

New roles for teachers is the centerpiece of many of the major reform efforts today (e.g. the Holmes report, the Carnegie report). Toledo has made a serious commitment to place teachers in positions of authority and responsibility that teachers traditionally have never enjoyed. This is a significant accomplishment.

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RESPONSE TO SITE REPORT

Dal Lawrence and Thomas Bollin[13]

Sharon Feiman-Nemser's report is an accurate description of what we want from our intern program. Her site visit review gave us only one surprise. We are as perplexed as she is about consultant comments that principals can do the professional growth activities and evaluation just as well, if they had time. Perhaps that is so, but it ignores employee-employer tensions that are unavoidable in traditional evaluation or professional growth models.

Some of the consultants in the program or "graduates" of the program do not hold that view. We almost doubled the number of new consultants last year, however, so perhaps new consultants still reflect the attitudes of their home school environment where many cooperative principal-teacher relationships exist. Their comments are important only in that they show the degree of dependence on administrators teachers have acquired through traditional school organizational structures. Whether or not a principal can do what a peer can do in a highly unionized urban school system has already been answered to our satisfaction. They cannot, with or without available time.

The intern program is seen as a governance reform basic to our efforts to build a profession for teachers with real professional responsibilities. Our newly installed career ladder is based on peer review and "exemplary" performance. Toledo's experience with peer review and the responsibilities involved allowed us to add the career ladder concept as another basic governance reform leading to the professionalization of teachers. At some point we want

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teachers to feel independence because they know they are competent. Changing attitudes is a slow business, however.

We know that many say evaluation and support should be separated. They are wrong, but for reasons not clearly understood. An employer can evaluate and/or discipline if he or she has time to do so properly, knows the work being evaluated, and then has the strength necessary to say, "No, you are not going to work here anymore." But it is difficult for even the best management evaluators to effectively deliver professional support services to the same employees they evaluate. The notion that these activities should be separated stems from the traditional roles assumed by management, including school management. Whether the two functions can work within the context of evaluation never gets a fair test.

Certainly both roles are necessary, especially with new teachers. Worrying about separation of professional development and evaluation begs a larger and more serious question: Why should management perform either role during the crucial induction year? Answers necessarily go to the heart of what needs to be done to improve the teaching profession. If teacher responsibility for inducting new people into their profession is viewed as part of a process to improve all teachers and their occupation, sensitivity about combining professional growth and evaluative functions is unwarranted. The induction year should serve to decide who can teach school, and if that is an uncomfortable experience for the intern, so be it. It is obvious to us that teachers can perform that function and principals cannot without major ruptures in overall employer-employee relations. The consulting teacher is successful as evidenced by the fact that 95 percent of the interns have their contracts renewed; the other 5 percent are no longer teaching in Toledo.

We have wrestled with the subject knowledge issue since Feiman-Nemser's visit. Her questions are certainly important. Are interns, or any teacher, really getting a solid academic education, and what role does this play in good teaching? Frankly, we do not have data to support our belief that it is valuable to know a great deal about what is being taught. For over 15 years we have paid extra salary to teachers who obtain graduate degrees outside the teacher training curriculum. We think in-depth understanding of a body of knowledge opens alternative instructional strategies and materials to students. But is that so? Our board of review has paid closer attention to the knowledge factor this year, but research is missing, and we need to give further thought to how we measure subject matter knowledge.

Are consulting teachers teacher educators? Now it is obvious that they are, but, when we began in 1981, it was not obvious at all. In fact, when we started the intern program we purposely excluded all training institutions. We assumed they had nothing important to contribute to an induction year. New teachers did not know about classroom management techniques, and most knew little about effective instructional methods. We decided we could not do worse, and maybe we could do much better.

Essentially we were right. But gradually we have come to believe that teacher training can play important and effective roles in the process of developing good teachers. For instance, we cannot conduct research on the link between knowledge of subject and effective performance. We do not have the time and we are not researchers. We know that much of what we are learning about intern performance needs to be fed back to pre-employment training programs. The intern program now links teacher education institutions with our consultants who have expertise in classroom management and instructional methods geared to real, live students. The intern year is a

logical extension of the teacher education program. The concept of connecting teacher education with induction programs makes so much sense now. In 1981 we just wanted to divorce ourselves from "professional education."

In conclusion, the preparation of teachers is undergoing dramatic changes that will bring public schools and teacher preparation programs together in ways that make sense for everyone, including students and taxpayers. Seven years ago Feiman-Nemser would not have had her phone call returned. She probably would not have phoned. Now we both seem to be comfortable with this new relationship.

EAST LANSING SCHOOL DISTRICT
THE EAST LANSING STUDY GROUP IN MATHEMATICS

SITE REPORT

Mary M. Kennedy

The East Lansing Study Group in Mathematics was an informal study group designed as a forum for elementary teachers to explore the subject of mathematics and the implications of that subject for how it is taught. The original intention of this study group was to meet weekly during Fall 1985 (roughly September to Christmas). However, the teachers apparently found these informal sessions useful and did not want to discontinue them. The group continued its weekly meetings through the 1985-86 school year and began again in Fall 1986. It ended finally in January 1987, in the middle of its second school year, when the study group leader left the country for several months. The study group was led by a university professor, who also taught fifth-grade mathematics in the East Lansing School District.

The East Lansing School District is a relatively small school system, serving a university community. Many of its schools are homogeneous, though the particular school in which this professor taught serves an mix of children from foreign lands, whose parents are graduate students at Michigan State University. Though the district did not award formal inservice credit for participation in the study group, it did advertise the study group and encourage participation.

The study group met weekly for two hours on Wednesday afternoons in an elementary school building. Conversations were informal and organized around mathematical problems introduced by the group leader. They were generally organized around a math problem that the study group leader brought to the group. These mathematical problems constituted the curriculum of the East

Lansing Study Group. About a dozen teachers participated. They were mostly white and female, as is the population of elementary teachers in East Lansing, though this group did contain two males and three blacks.

The study group leader gave careful consideration to her decisions about what problems to introduce, what topics to discuss, and what role to play in the group. In regard to the content, she selected problems that embodied mathematical ideas typically found in the elementary mathematics curriculum, that illustrated fundamental mathematical concepts, that could be solved in different and equally legitimate ways, and that could be solved intuitively if teachers did not know a great deal of mathematical procedures. One problem, for instance, envisioned a swimmer who normally swam 30 laps in a pool. When encountering a pool of a different size, the swimmer wanted to know how many laps to swim in order to cover the same total distance.

The general format followed by the group was that problems would first be solved by teachers working individually; then by teachers working in pairs, approaching the problems in whatever way they could. Lengthy discussions then ensued among the group as a whole about the assumptions underlying their different approaches, the mathematical implications of each, and the value of the problem in teaching mathematics to elementary students.

The study group leader made conscious decisions about when and how to participate in these discussions. She might decide to recede from the conversation when it dealt with teaching methods, on the assumption that all teachers in the group were equally qualified to discuss pedagogy, but she might take a stronger role at another point in the conversation, even moving to a lecture format occasionally, when she wanted to clarify the mathematical issues involved in a problem.

The sections that follow identify features of this program that are particularly pertinent to the Center's research questions. They address the program's purpose, the view of teaching that appears to stand behind it, the view of learning to teach that appears to underlie it, staff perceptions of the clientele, and the program's orientation to subject matter.

Purpose

The East Lansing Study Group was unusual in that it concentrated on mathematics per se, rather than on teaching mathematics. The meetings were designed to increase teachers' knowledge of mathematics. The study group leader emphasized that she did not deal directly with how to teach mathematics. She never visited teachers in their classrooms, for instance, nor gave specific guidance as to how particular content should be taught. However, she did model a method of teaching mathematics as she led the group, and she selected mathematical problems that the teachers could use in their elementary classrooms. In addition, participating teachers often discussed the pedagogical implications of the mathematical knowledge they learned, and they shared anecdotes about their experiences teaching mathematics.

A second purpose had to do with how the first purpose was accomplished. The study group leader stated the she had, on an earlier occasion, been involved in an inservice project that made some teachers very uncomfortable by revealing their lack of mathematical knowledge, and she did not want this to happen again. Thus, her second purpose was to enhance teachers' knowledge of subject matter in a way that did not threaten or intimidate them. This concern may account for the small, informal, and voluntary nature of the group.

View of Good Teaching

This program was guided by the view that good mathematics teaching is driven by the subject matter, not by the textbook pages and not by any set of a priori generic teaching devices. The study group leader argued that most teachers understood mathematics to be a set of facts and procedural rules and that the rules often seemed arbitrary to them because they did not understand where the rules came from. She wanted them to see mathematics as a way of reasoning, to recognize that there are often many equally valid but different approaches to solving a mathematical problem, and to realize that there are rules of evidence and proof that can be used for evaluating mathematical arguments. She also wanted them to understand mathematics as a system of interrelated ideas--to understand, for instance, the different things a fraction can represent, and how fractions are related to other concepts such as division. The study group leader did not prescribe a particular set of pedagogical devices for teaching mathematics, but instead tried to help teachers better understand mathematics themselves, on the assumption that their understanding of the nature of mathematics influenced their approach to teaching it. She believed that if teachers understood these ideas, they would be more inclined to teach in a way that reflected the reasoning of mathematics rather than the rules of calculation.

This view of teaching mathematics covers all stages of teaching. In interactions with pupils, the teacher's knowledge of mathematics as a set of interrelated concepts and as a way of reasoning should drive both how the subject is represented and how the teacher responds to questions raised by pupils. Decisions made during other acts of teaching--lesson planning, giving and evaluating assignments, and so forth--would be based on these ideas, rather than on, say, assuring that textbook pages are covered or that students get

correct answers without regard for how those answers were derived. All teaching decisions--what to teach next, what digressions to permit, when to help and when to let students work it out on their own--should be based on what would be mathematically reasonable to do, rather than on what lesson comes next in the textbook, or on how many pages have been covered.

View of Learning to Teach

The East Lansing Study Group was based on the study group leader's perception of the knowledge that contemporary elementary teachers have of mathematics. She believes many elementary teachers either do not understand mathematics or are afraid of it, or both. Because most of them learned mathematics as a set of algorithms that were never explained, they often view mathematics as complicated, arcane, and anxiety-provoking. When they teach, such teachers cling to the a priori rules they were taught and may even tell students they are wrong when they are not.

Consistent with this perception, the study group reflected two views about learning to teach mathematics. One had to do with the substantive content of mathematics, the other with teachers' feelings about mathematics. The first view was reflected in the curriculum--the mathematical problems selected for discussion. The second view was reflected in the study group methods--the informal conversations, the voluntary participation, and the lack of formal course credits.

Perception of Clientele

Only about a dozen teachers participated in this program. They were all elementary teachers currently teaching in the East Lansing School District. According to the study group leader, some participated because they loved

mathematics, others because they were afraid of it. The former participated because they believed the study group helped them with pedagogy; the latter because it helped them with mathematics. The latter group also participated because they perceived the study group as nonthreatening.

Orientation to Subject Matter

Teacher education differs from many other professional education programs in that it does not provide teachers with everything they need know in order to teach. It assumes teachers have learned their subject matter in other places. Professional preparation therefore attends only to teaching activities, not to subject matter. How teachers can be prepared separately from their subject matter learning, however, is not clear, and different teacher education programs define their responsibilities relative to subject matter in different ways. They may assume that teachers already possess the requisite subject matter knowledge and need assistance mainly in pedagogy; or they may assume that teachers need to relearn subject matter from a pedagogical standpoint. The East Lansing Study Group was unusual in that it assumed that teachers really had not learned the subject matter. It took subject matter knowledge as the responsibility of a teacher educator rather than of a mathematics department.

Issues Raised by Visiting this Site

Just as most preservice teacher education programs assume teachers already know their subjects, most inservice programs assume teachers already know both their subject(s) and the basic principles of pedagogy. Consequently, inservice programs tend to focus on knowledge that would not have been available at the time teachers completed their preservice preparation--new research on

discipline or classroom management, or new knowledge about the writing process. This study group, on the other hand, was designed on the assumption that teachers may not have been aware of basic ideas in mathematics--ideas that are not new and that presumably should have been learned years ago.

If this assumption is true, it raises important questions about how both preservice and practicing teachers could acquire the kind of subject matter knowledge this study group leader was striving for. It is apparently not something they acquired during their own elementary or secondary mathematics education, for most elementary mathematics curricula emphasize technique and procedure more than mathematical reasoning. It is also not necessarily acquired in college mathematics courses. These courses provide specific techniques within each of the subdisciplines--statistics, matrix algebra, calculus, and so forth. Finally, this content is not something teachers would necessarily learn in math education or math methods courses, for these courses also concentrate on methods, not on subject matter concepts per se.

Even if university courses were altered or augmented to provide this content, it is not clear that such alterations would succeed. For if elementary teachers experience the mathematical anxiety this study group leader saw, then the formality of university courses, with their credits and grades, may not enable faculty to respond to teacher apprehensions. In contrast, it is not clear that a study group such as this can address a problem of this apparent magnitude.

Finally, the study group raises questions about the role of teacher educators in learning to teaching. This study group leader, for instance, did not enter teachers' classrooms, did not coach participating teachers nor try to provide explicit guidance on how to teach specific concepts. Although she modeled a way of teaching mathematics, and provided examples of what she

considered to be appropriate elementary school mathematics problems, she has no knowledge of whether or how teachers' classroom practices may have changed as a result of participation in the study group. Instead, she must rely on her assumption that fuller understanding of mathematics will naturally lead to better teaching.

RESPONSE TO SITE REPORT

Magdalene Lampert[14]

Most "reforms" of curriculum and instruction in elementary school mathematics focus on the problem of motivation: Students don't like mathematics, or they are bored by it, or it causes them anxiety. From the psychologists comes the admonition that school mathematics teaching needs to be changed because children do not learn by listening; they need to do activities, use manipulative materials, create solutions to problems. And from policy-makers, we hear that school mathematics fails to prepare students to succeed with practical tasks involving numbers in the real world. In contrast to these rationales for doing something about the way mathematics is taught in schools, the East Lansing Study Group focused first on teachers' lack of appreciation of the subject matter itself. The unusual nature of this focus is captured well by the forgoing description.

As I have reflected over the past several months on what occurred in the Study Group, I think that the greatest change in the teacher-participants was in their sense that mathematics was a subject that they could understand in a deep way. Some of them had been adequately skilled in using mathematical formalities before joining the group, but none had a sense of the "big picture" that holds the subject together; they had little or no experience with mathematical activities like conjecturing and proving, inventing algorithms, symbolizing relationships across contexts, and the like. And they believed that only "geniuses" were capable of such activities. That is not surprising.

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Even undergraduate mathematics majors have little experience with these processes. Yet we are writing curricula and "standards" for judging elementary mathematics teaching that suggest that these are the processes around which the school learning of mathematics should be built. What happens when teachers, who have never done these things themselves, try to do them with students? As one of my colleagues has said, "They contentize the process." As teachers did with "the new math," they make the surface elements of activities like representation and problem solving the goal of instruction, rather than providing their students with an opportunity for learning to think mathematically, because they have not idea what thinking mathematically might be like.

I have also come to understand more fully my role as a "model teacher" in the Study Group in the several months since it finished meeting. In addition to the modeling of pedagogy in learning mathematical activities, I represented to the teacher-participants the idea that someone could both "care about people" and "be seriously into mathematics." They say themselves as people who went into teaching because they cared about children, and based on their experiences with people who were good at mathematics, they never imagined that they might be the sorts of people who could also take mathematics seriously. The prejudice among the general public (including school teachers) against mathematics and doers of mathematics is frightening.

Working among people who like the subject and find its problems fascinating, one tends to forget the depth of fear and disgust most people feel toward the subject and the way they were taught it. And one does not need to observe in too many secondary and tertiary mathematics courses to see why those feelings exist, especially among females. That I was a woman, and an elementary school teacher, and a "mathematician" severed to change the

teachers' views of who they were and what they could do. That I went beyond providing a safe and friendly environment to connect our activities also with the recognizable mathematical formalities that had previously struck terror into their souls made more difference to their development than a whole bookful of new ideas for how to teach place value.

Working with this group was a luxury. Regular meetings with a small group of people over an extended period of time is rare in "inservice teacher education." But what I learned about the magnitude of the problem from working intensely with these few teachers only served to confirm my belief that the sort of change that is desirable takes time and support, as well as a serious infusion of deliberate work with the subject matter. I also recognize that the group was wholly voluntary, and that this had a great deal to do with what it was able to accomplish. Several more "volunteers" among teachers in the district have contacted me since the group began in the hopes of joining or starting another group in the future, having heard about their colleagues' experiences. That is a hopeful sign, and also a sign that change takes time. Others have spoken with me less enthusiastically, wishing that there were time in their already-too-busy schedules to devote to learning mathematics. Perhaps the most satisfying outcome of this project was the teacher-participant who said to me that her feelings had changed from self-deprecation to anger at the system that did not provide the opportunity for her to <u>learn</u> mathematics before she was expected to teach it.

MOUNT HOLYOKE COLLEGE, SOUTH HADLEY, MASSACHUSETTS
SUMMERMATH FOR TEACHERS PROGRAM
AND EDUCATIONAL LEADERS IN MATHEMATICS PROJECT

SITE REPORT

Deborah Loewenberg Ball[15]

The SummerMath for Teachers Program is a summer program for practicing elementary and secondary mathematics teachers. The Educational Leaders in Mathematics project (ELM) funded by the National Science Foundation (NSF) is a more intensive program within SummerMath for Teachers and involves a subgroup of the SummerMath teachers.

Description of the Programs

SummerMath for Teachers

Context. This program has existed since 1983. Mount Holyoke College, its sponsor, also runs SummerMath, a nationally recognized program for high school women. The two programs are organizationally separate but reflect the College's interest in precollege mathematics education (as well as a practical interest in making use of campus facilities during the summer). Mount Holyoke College is a small, well known liberal arts women's college, located in western Massachusetts close to Amherst, Smith, Hampshire Colleges and the University of Massachusetts. SummerMath for Teachers is open to both men and women.

Participation. Three two-week institutes are offered each summer: one for teachers of grades K-6, one for secondary mathematics teachers, and one for teachers who are returning for a second summer. Approximately 72 teachers (36 elementary and 36 secondary) participate in the institutes each summer.

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Information about the program appears in professional journals (e.g., Arithmetic Teacher, Mathematics Teacher), and brochures are mailed all over the country and abroad. The cost of the program (approximately $700) includes tuition, room and board, and three graduate credits. Teachers are housed in a Mount Holyoke College dormitory and they receive instruction in dance and tennis as part of the program.

Over the years participants have come from over 40 states and 10 countries. The program encourages more than one teacher from a school district to enroll in order to increase the likelihood of implementation and carryover once participants return home. The elementary group generally consists of more female than male teachers; the secondary group is usually about evenly divided. Overall, few minority teachers have attended summer institutes; this is a concern for the program and the staff is actively trying to recruit minority teachers and teachers who work in schools with a large percentage of minority students. For example, 20 minority teacher scholarships were available for the summer of 1988; the director is currently seeking additional funding for minority scholarships for future summers.

Program staff note that the teachers who come to SummerMath are varied. What the teachers have in common is that they are willing to participate in a program during the summer and that they are interested in spending this time to learn about teaching math. Other than that, the director suspects that they are better than average teachers and that they may also be somewhat more dedicated and perhaps more confident. He was initially surprised to find that "extremely math anxious people" would "submit themselves to such a program."

In terms of the teachers' own competence with mathematics, the elementary teachers' mathematics background tends to be weak. Among the secondary teachers, there is a wide range--including some with a master's degree in

mathematics and some who are not even certified in math. Still, across all of them, there are "substantial holes" in their understanding, even in areas they are currently teaching.

Perspective and goals. The director described the goal of the SummerMath for Teachers program: to help teachers develop their abilities to teach in a way that involves students in a problem-solving, active-learning approach to the learning of mathematical concepts."

The program is based on a view of mathematics learning, often labeled "constructivist," which holds that individuals must construct their own understandings of mathematical principles and concepts. According to this view, students must be actively involved and their engagement must move from the concrete to the abstract levels if they are to develop conceptual understanding and the ability to solve mathematical problems. Telling and explaining are less the teacher's trade in this approach. Instead, the teacher serves as a guide, facilitating students' learning by posing situations and asking questions aimed at helping students clarify their thinking. The program director pointed out that this teaching approach was not unique to mathematics; in fact he has done "generalist workshops" for teachers, and the teachers in SummerMath have remarked to him that this approach "fits right in with the process approach to writing and the process approach to science--it's completely compatible."

This theoretical perspective undergirds both the content and the process of the summer institutes. Teachers enroll in two courses: one on conceptual development and problem solving and the other on computers and Logo. Special speakers are also invited to lead discussions on topics such as women and mathematics, math anxiety, and Piaget. In addition, participants are required to take tennis lessons and a dance class. The rationale for this is twofold:

(a) it offers the teachers an additional opportunity to reflect on their own learning, and (b) it provides them with a physical break.

The program director identifies key beliefs, skills, and knowledge that teachers need in order to base their pedagogical approach on the SummerMath philosophy:

- o Belief in a view of learning: Teachers need to believe that each learner must construct his or her own individual understanding. Teachers must be convinced of the importance of working from the concrete to the abstract.
- o Specific pedagogical skills: Teachers must listen to students' ideas and feelings, paraphrase what pupils say, and encourage students to listen to one other. They must be able to ask probing questions rather than leading ones ("a leading question is one which has implicit suggestions about what to do"), allow wait time, and be able to implement and manage alternative classroom structures (e.g., small-group work).
- o Ideas about the teacher's role: Before teachers can start asking probing questions, they must "give up responsibility for getting the students to the answer." Instead, teachers must see their role as helping students to construct meaningful understandings of the mathematics and to acquire control over their own learning and problem solving.
- o Subject matter knowledge: Ideally, a teacher who uses the pedagogical approach of SummerMath should have a deep understanding of mathematical concepts and the connections among them. If a teacher lacks this kind of insight, his/her facility as a guide will be more limited, but it is possible. The teacher must let the

students explore, and their explorations must not be restricted to what the teacher knows.

What both project staff and participants find especially significant is that staff members work with the participating teachers just as the program encourages the teachers to work with their pupils. When asked about the view of teaching that underlies the program, the director said, "When I answer that question, I am also answering a question about the kinds of things we think about when we try to design our own lessons--and what we use to keep ourselves honest." According to teachers' written evaluations of the program over the past four summers, this feature of the SummerMath for Teachers program stands out to the participants as well. One teacher remarked that she had been to many other inservice programs where "people tell you lectures aren't any good--and then they sit there and lecture to you!"

Program staff. There are two (overlapping) groups of staff members: those who are involved in the summer institutes and those who follow up with the ELM teachers during the year. Although the program director is enthusiastic about the strength of the staff, recruitment and replacement of staff is a big problem. The job is temporary, part time, and the pay is low. Furthermore, he notes, only a small pool of people have experience doing "constructivist teaching" in mathematics. While it is possible to find people who have thought about constructivism as a theory of learning and those who have done research on learning, it is not easy to find individuals who have experience teaching from a constructivist perspective. In terms of mathematics, some of the staff who are hired to work with the secondary teachers have studied a great deal of mathematics (i.e., have a master's degree in math), while some of the elementary staff members just "tend to be stronger than the average math teacher."

Educational Leaders in Mathematics Project

Purpose. Within the SummerMath for Teachers program, Educational Leaders in Mathematics is an additional NSF-funded project, enrolling 30 (20 elementary and 10 secondary) of the SummerMath teachers per year. Instituted in 1986, this program is longer and more intense and involves participating teachers over two summers and three school years. Its goal is to prepare excellent classroom mathematics teachers to be inservice leaders in their own school districts or regions. To increase the likelihood of success, ELM teachers must have the support of their districts and must attend with at least one other teacher from their district, preferably someone who teaches at the same level.

Structure and process. There are five stages to the ELM project. In Stage One, teachers participate in a regular SummerMath for Teachers institute. Stage Two, during the following school year, entails intensive follow-up and support to these teachers as they attempt to implement in their own classrooms what they learned in the summer. Every week throughout the entire year, a project staff member visits each teacher's classroom. Teachers and staff members are paired for this purpose. The staff person either teaches a demonstration lesson or observes. Then the teacher and the staff person confer for half an hour, discussing the lesson and other issues that may be of concern to the teacher. The staff member's role is to ask questions to encourage self-evaluation, as well as to offer his/her own comments on the lesson. One teacher, commenting how much she valued having someone come out to her classroom each week, said that this "provides a real impetus to make sure that you don't keep doing the same thing all the time."

The participating teachers also attend three or four group work sessions on the Mount Holyoke College campus throughout the year. These half- and

full-day sessions are intended to extend what the teachers are learning and also give them an opportunity to talk with one another.

The program's funding allows 12 slots for teachers to continue into the advanced levels. Yet, with additional school district support, about 15 to 18 of the ELM teachers continue into Stages Three, Four and Five of the project. In March, interested teachers are selected for this advanced level of the program, based on the degree to which they have been successful in implementing what the project calls "constructivist teaching," their commitment to the objectives of the project, as well as evidence of their communication skills and ability to collaborate with other teachers.

During the summer (Stage Three) the selected teachers participate in a two-week Advanced Institute, which includes further development of topics and skills introduced in the initial summer institute, as well as preparation for leading inservice workshops. Stage Four occurs during the following school year, during which the teachers (in pairs) form teams with project staff members (one in each team) to plan and conduct inservice workshops for teachers in their local districts. At the end of that year, all of the participating teachers met together with project staff to plan the inservice workshops for the following year. Administrators from the participating districts also attend one half-day of this three-day workshop. Stage Five is the final component of the project. During the third year, ELM teachers conduct inservice workshops on their own in their school districts.

Themes and Questions

View of Teaching

The program's view of teaching is a clear example of an approach which focuses on the learner and on learning. The teacher's role is to watch and

listen to what pupils are doing and to offer challenges. Toward this end, one strategy that the program models is to allow students to work in small groups.

Since the approach advocated by this program is quite different from the way mathematics is taught in most elementary and secondary classrooms, it would be interesting to know how different participating teachers incorporate the ideas. How persuaded do they become of the value of this alternative perspective on learning and on the teacher's role? What do they <u>try</u> to do and what do they actually <u>do</u>? Why and how do they do that? Does the program play any role in preparing teachers to negotiate their school situation (e.g., dealing with the principal, managing curricular expectations, explaining to parents)?

<u>Shared Beliefs</u>

There is a strong sense of commitment and mission in this program. Its fundamental core is a strong belief in a view of learning that emphasizes individual sense making. It seems that the project staff and many of the participants come to share these convictions. At a secondary teacher meeting which I attended in November of one school year, teachers reported what was going on in their classrooms. These reports were strikingly enthusiastic and reflected a sense of professional and personal renewal. For instance, one geometry teacher announced that his students were doing the most difficult proofs in his textbook, that he had skipped over the easier ones: "The big difference is that they're doing it for themselves. I'm <u>not</u> showing them how to do it. I feel sometimes like I don't belong, but we're having a good time and they're really interested."

A second geometry teacher agreed:

> I feel like I'm fighting in my head. I go up to the board and I stop and think, "Stop, this isn't the right thing to do--there's no reason to explain this to them, they could figure it out for themselves." For instance, they saw about two angles having a

> common side. A student asked, "Could there be two triangles having a common angle?" Other years I would've gone to the board and explained it and it would've been over. Instead, I said, "That's an interesting question--what do the rest of you think?" The kids began working on it.

Such fervent conviction makes one wonder about what happens at the summer institutes--what kinds of changes different teachers undergo and how this comes about. What do they believe or do prior to SummerMath? What happens during the institutes and what happens later once teachers are back in their classrooms? Does the program attract people who are already disposed to this way of thinking about learning or do some teachers come because of the focus on computers or problem solving? Do some teachers raise objections in the course of the workshops? How do differences in beliefs or orientations diffuse into different understandings and practices among the participants? What roles do the various staff members play, and within groups of teachers, what roles do individual teachers play?

Teachers' Knowledge, Skills, and Dispositions

Given the constraints of time and resources, the SummerMath staff have chosen in the past to devote relatively little attention to improving the teachers' overall understanding of and knowledge about mathematics. Most emphasis has been placed on fostering beliefs about and commitments toward learners and learning in general. The staff also works to help participating teachers develop teaching skills that are associated with those ideas (e.g., asking probing questions to help pupils clarify their ideas). Still, one might wonder whether and how a teacher whose own mathematics background is very weak can select and pose worthwhile problems or ask questions appropriately. This is a question that is currently of central concern to

program staff who are in the process of designing a mathematics course for participating teachers, to begin in 1989.

In addition to knowledge and skills, dispositional goals seem particularly important in this program. The year-long classroom follow-up helps to build teachers' dispositions to act in the ways the program stresses: One teacher commented that having the project director come out to her classroom every week provides motivation not to fall back into doing "the same old thing."

View of Learning to Teach

A noteworthy aspect of the program lies in the staff's efforts to make the way they work with teachers consistent with the approach they advocate for pupils. As several of the teachers commented, this is all too unusual in inservice programs for teachers, and it would be interesting to learn what this looks like in action.

Consistent with the constructivist orientation of the program, staff members freely acknowledge that participating teachers, learners themselves, inevitably make sense of the program in different ways. The teachers implement different aspects of the program in different configurations and with different purposes. Interestingly, therefore, the strong shared commitments and convictions turn into a diffusion of individual goals and outcomes from the program. Does this cause conflicts for the project staff who have a mission to reform mathematics teaching and learning in a rather definite way? How do staff members deal with situations in which teachers implement particular strategies emphasized in the program within the context of a traditional mathematics program, for instance?

RESPONSE TO SITE REPORT

Deborah E. Schifter[16]

As an addendum to Deborah Ball's discussion of the SummerMath for Teachers Program, I would like to report on our next initiatives. The expiration date for the ELM Project--August 31, 1988--marks the beginning of a new project, the Mathematics Leadership Network, which will operate within the SummerMath for Teachers Program. Writing now, in July 1988, I describe future plans.

The Mathematics Leadership Network (MLN) was designed to build on the strengths of the ELM Project and extend its scope. The goals of MLN are as follows:

1. To disseminate more widely the methods of constructivist education throughout participating districts, promoting district self-sufficiency in teacher enhancement efforts.

2. To involve additional districts, with a special focus on urban areas with large minority populations, to have teachers from which districts participate in initial levels of training, and to disseminate methods district wide, as in #1.

3. To establish structures that promote communication among teachers.

4. To strengthen the mathematics background of elementary teachers.

5. To strengthen participating teachers' understanding of constructivist methods and knowledge of curricular ideas.

As a vehicle to meet these goals, MLN adds two major components to the overall program: resource teacher internships and fundamental mathematical concepts courses for participating teachers.

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Resource Teacher Internships

Teachers who have participated in the ELM Project have made remarkable changes in their own classrooms. On the whole, however, we do not see significant changes in the districts from which these teachers come. While the advanced-level workshops conducted by the ELM teachers for colleagues in their districts provide a forum for the presentation and discussion of ideas and methods introduced in the summer institutes, a series of two to four afternoon sessions is simply not sufficient to effect change in those colleagues' classrooms.

In response to this problem, the resource teacher internship program is designed to train outstanding teachers to assist colleagues in their home districts to implement constructivist approaches to mathematics instruction. The role is based on the ELM model, but, in MLN, district teachers themselves are trained through the internships to do classroom follow-up. By having teachers, rather than project staff, perform this task in their own districts, districts will become more self-sufficient in improving math instruction, more teachers will be reached each year, and stronger working relationships will be established among colleagues.

Prerequisites for the resource teacher internship program include a summer institute, academic year follow-up with project staff, and a one-semester MLN course (see below). Resource teacher interns will be selected, from among those teachers who have participated in all of these, who have successfully implemented constructivist instruction and who work well with other teachers. The internship program begins with a two-week orientation class and then during the academic year resource teachers meet as a group with MLN staff on a weekly basis to discuss issues that arise in their own follow-up work.

Fundamental Mathematical Concepts Courses

Two semester-long courses--one for elementary teachers and one for secondary teachers--have been designed in response to teachers' requests for further instruction. Teachers at both levels say that they have not been provided with enough modeling of constructivist instruction or curriculum ideas to develop full programs on their own. In addition, at the elementary level, work on developing constructivist teaching approaches is often hampered by the relatively poor mathematics backgrounds of the participants. By contrast, secondary teachers are usually better equipped mathematically, but the concepts with which they must work in the classroom are necessarily more abstract. As a consequence, while the course for elementary teachers will emphasize teacher as math learner, the course for secondary teachers will focus more specifically on issues of pedagogical practice.

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UNIVERSITY OF CALIFORNIA-BERKELEY
BAY AREA WRITING PROJECT

SITE REPORT

Mary Louise Gomez[17]

State Policy Context

The Bay Area Writing Project (BAWP) is the seed or model project for the National Writing Project, a 161-site network of staff development projects in the United States and nine foreign nations. The California Writing Project (CWP) currently maintains 19 sites in communities throughout California.

The Bay Area and California Writing Projects have influenced California state policy concerning instruction, assessment, and staff development in writing. The BAWP has also served as a model for staff development in other curriculum areas. The California state legislature recently funded "Bay Area model" staff development programs in mathematics, science, and the fine arts. As BAWP Director, James Gray reported (Interview, December 1986) that California Superintendent of Public Instruction Honig was particularly interested in funding programs across the curriculum which use the BAWP model.

The California State legislature supports the BAWP as the lead agency for the California Writing Project. Current annual legislative funding is $701,418 for all 19 California sites ($551,902 course support and $149,516 affirmative action support).

Further evidence of close ties between the state and this project is CWP participation in the revision of the California Assessment Program in

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writing. The California Writing Assessment, formerly an objective test with an error identification focus, will be replaced with direct writing assessments of all California students. The California Writing Project has been named by the state as the resource for provision of staff development in the "purposes, benefits, and classroom applications" of the new California writing assessment (Interview, 1986).

The BAWP was an Educational Testing Service subcontractor and coordinated the development of a 10-member California Assessment Program Writing Development Team. This group, with the leadership of the CWP/San Diego Writing Project Director Charles Cooper, conducted the writing, selection, and revision of classroom materials and scoring guides and led numerous inservices concerning test purpose, administration, and scoring.

Several Bay Area Writing Project teachers are also involved in California's Mentor Teacher Program. The state provides an additional $4,000 of salary and released time to work with peers for persons identified as exemplary teachers. BAWP teachers focus their released time upon writing instruction and assessment.

The Program

Requirements for Admission

The Bay Area Writing Project annually operates three summer writing inservice programs, one five-week invitational institute and one five-week "open" institute. While any teacher may enroll in the open institute, the invitational institute requires nomination by another teacher or an administrator, a formal letter of application, and a one-hour interview of each nominee with James Gray,the director of the California and National Writing Projects, and Mary Ann Smith, Bay Area Writing Project director, and Rebekah Caplan, co-director. About 100-120 teachers are nominated annually.

Approximately 44 are interviewed and 20 selected for participation. The project directors attempt to create a group representative of primary grades through college teachers, inclusive of minority teachers and those who teach minority and low income students.

A third, smaller summer program is a two-week institute for 10 to 15 senior high school teachers of advanced composition. This summer program was developed in response to the high numbers (41% in 1977) of entering Berkeley freshmen required to enroll in Subject-A or pre-English IA, a remedial composition course. The Bay Area Writing Project offers these teachers $200 stipends to participate in this program. Participating teachers are trained as if they were to become Subject-A level English instructors at the university.

Size of Student Body

The invitational institute annually enrolls 25 persons, 20 new teachers, and 5 former participants who are asked to return for another summer. The invitation to former teacher-participants is a recent program modification. While the Bay Area Writing Project was begun in 1973-74, the invitation to return as a participant began in 1982. Teachers in the invitational institute become writing staff development consultants. The open institute annually enrolls approximately 120 teachers.

Annual Tuition

Tuition to either of the summer institutes is approximately $500. Several book purchases are also required. Teachers enrolled in the invitational institute receive a stipend covering these costs. Open program enrollees pay their own tuition and fees unless funded by the Partnership Program. The BAWP annually offers $500 stipends to 25 Partnership Program

teachers who teach in schools with substantial minority student populations. These teachers work together as a subgroup of the larger open institute.

Characteristics of the Student Body

The invitational and open institutes reflect the characteristics of the California teaching force. The majority of participants are Caucasian women. For example, the 1986 invitational summer institute included 21 Caucasians, 2 Blacks, and 1 Hispanic teacher. The Partnership or affirmative action portion of the open institute included 10 Caucasians, 6 Blacks, 1 Asian, and 5 Hispanic teachers. The age of most participants is in the early 30s to middle 50s. Most teachers in the invitational institute have taught for at least five years.

The Course of Study

The invitational institute operates each summer for five weeks, Monday through Thursday, 9 a.m. to 4 p.m. with a potluck dinner at the home of a program participant every Thursday evening. Participants in this program enroll in the 4-credit University of California-Berkeley course 301-A entitled "The Teaching of Writing."

The curriculum of the invitational summer institute focuses upon these activities: writing and editing by teacher participants; demonstrating one's best teaching practice for peers and refining that for future staff development work; listening to and participating in presentations by BAWP staff and guest speakers; and reading and discussing research concerning the teaching of writing.

The writing requirements include daily logs written by two teachers. These logs are presented in dramatic readings to the group and are printed and distributed to all participants. Teachers are also asked to provide

written evaluations of all presentations to the group as well as participate in short assignments which are part of others' presentations. The BAWP also requires four major writing assignments of each participant. The first three of these papers are related. Teachers are asked to write about any single topic in three different ways. The fourth paper is a choice of writing either a personal position paper in which teachers describe their own approaches to teaching writing or a school writing policy statement. Copies of all fourth papers are distributed to each teacher.

Teachers are also asked to present to their peers a so-called best practice in the teaching of writing. This presentation is developed, refined, coached, and evaluated by peers and staff. The goal is to develop a presentation which can be used in future BAWP staff development programs as the participants become BAWP teacher consultants. The third part of the curriculum consists of staff and guest speaker presentations concerning the theory and practice of teaching writing. One afternoon per week is also devoted to reading and discussing research relevant to the teaching of writing.

The open program, which began in the summer of 1976 is a five week, five day per week course (held in the mornings) officially called "Improving the Teaching of Writing at All Grade Levels." This program is modelled upon the invitational institute. Participants write and edit their work in peer response groups, discuss research concerning the teaching of writing, and listen to presentations by BAWP staff and guest speakers. They also participate in a miniconference in which they make presentations to one another. These teachers do not, following this experience, become teacher consultants. Several of the current teacher consultants did initially attend this program and were subsequently nominated and enrolled in the invitational institute.

Requirements for Completion

Teachers receive special student credit at the University of California-Berkeley for their work. There are no part-time graduate students at this institution, so all credit accrued by full-time teachers must be taken on the special student basis. There are no explicit penalties for failure to complete course assignments. No degrees, certificates, or explicit credentials are awarded upon program completion.

However, teachers completing the invitational institute have the opportunity to become part of a network of teacher consultants who offer series of inservice concerning writing in the Bay Area schools. These teachers are paid by the BAWP for their work. Teacher consultants who coordinate the planning, teaching, and evaluation of a series of three-hour per session courses are paid $850. Teacher consultants who make presentations at these sessions are paid $85 per presentation during their first year of work and $115 per presentation thereafter. Sixty-seven of these series of workshops were conducted in the Bay Area in 1986. The prestige of participation in the invitational institute is high and appears to serve as a reward in itself to the teachers interviewed.

RESPONSE TO SITE REPORT

James Gray[18]

While I would have described certain characteristics of the Bay Area Writing Project in slightly different ways (the research and writing components, for example) and would have included some description of items now missing in the report (the long-term financial support from the schools, public and private and the project's positive evaluation results on improved student writing and improved teaching of writing as published in the NWP Evaluation Portfolio) and would have emphasized certain items that I believe are important and remarkable (the phenomenon of worldwide replication of this UC-Berkeley program and the continued growth of the National Writing Project (an additional 26 universities in the United States, Puerto Rico, and Canada have inquired about affiliation this last year), Mary Gomez's analysis of BAWP is mostly OK.

The report is at its best in describing teacher reactions to the project and the sense of community, ongoing support, self-respect and empowerment that BAWP has given to so many classroom teachers. But I would describe BAWP's Invitational Summer Institute in somewhat different terms. The institute (5 weeks/20 days) includes four basic components:

> --the workshops all participating K-university teachers conduct during the morning sessions, two such workshops per day--an hour and a half each--in which teachers demonstrate their approaches to teaching writing and their most successful classroom practices, what they do and why they do it.
>
> --the writing teachers do at home and during the three-day weekends and the three afternoon sessions they spend in small peer response groups discussing and editing each others' writings.

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[18]James Gray, founder and former director of the Bay Area Writing Project, is director of the California and National Writing Projects, and faculty member in the School of Education at University of California-Berkeley.

--and finally, the training and preparation to be a Bay Area Writing Project Teacher Consultant.

I would not, as the report does, single out writing as the most important priority of the institute, although some teachers have told us that they have learned more about the teaching of writing by writing than anything else we do. The writing is important. It brings the program full circle. Teachers are not just talking about writing and reading about writing; they are also doing it. But we do look for balance in our overall program and do not neglect the research and reading component. BAWP is an ongoing program that does not end for teachers at the close of the summer institute. I believe, for example, that we do our best job introducing classroom teachers to research findings during our yearlong teacher-research program in which teachers seek out and study research related to their own interests and questions. In the world of teacher research, there is no wall that separates the teachers from the researchers. Also, during the many follow-up programs sponsored by the project during the school year, there is a continuing effort on our part to make recommended materials on writing available to teachers, new publications as well as key works from the past.

What the Bay Area Writing Project is able to accomplish cannot be judged just by what happens during the comparatively few days and hours of the summer institute. Rather it is the cumulative effect over time, the impact of ongoing participation in a range of summer and school-year programs that is creating surely and steadily, a growing corps of teacher-scholars in our classrooms.